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United States
Circuit Court of Appeals
For the Ninth Circuit.

Apostles

(In 7 Volumes.)

MATSON NAVIGATION COMPANY, a Corporation,
Appellant,

VS.

UNITED ENGINEERING WORKS, a Corporation,
Appellee,

VOLUME VII.

(Pages 2305 to 2719, Inclusive.)

Upon Appeal from the United States District Court for the
Northern District of California, First Division

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(Testimony of Fred A. Gardner.)

Q. When you saw it, what was there about it that you knew then that you don't know now?

A. I don't remember.

Q. Well, you have now your answer that you did not see the holes in the ribs and the description was given to you of them? A. Yes.

Q. That description was not given to you at that time? A. No.

Q. It had previously been given to you?

A. Probably.

Q. And all that you saw was, you saw the head and where it was drilled for an inch and a half drain plug; isn't that right? [1986—1898] A. Yes.

Q. Where was it drilled for that inch and a half drain plug?

A. Approximately where it is shown on this sketch.

Q. Which sketch?

A. This sketch (pointing to sketch 92 of Heyne-mann Exhibit No. 3).

Q. I do not see anything in that that shows it. Point it out.

A. I pointed to it, right there, an inch and a half brass drain plug.

Q. You are now referring to the brass plug that is fitted on to it? A. Yes.

Q. And not to the drilling of the hole?

A. No. The drilling of the hole is necessary to fit the plug there to be of any use.

Q. So all you saw then was the brass drain plug?

A. No, I saw the head also.

(Testimony of Fred A. Gardner.)

Q. Yes, and all that you saw about the head at that time that gave you any information on this subject was the brass drain plug?

A. We saw all that there was any necessity for seeing to give us any idea of what was necessary to do that work and make an intelligent estimate on it at the time.

Q. You think so, that is your idea? A. Yes.

Q. Let us see whether you did or not. You did not see the holes that were taken through the ribs, did you? A. No.

Q. How many ribs were there?

A. I don't recall that now, but we had a statement to that effect.

Q. How were the holes bored through the ribs?

A. Probably ratcheted through; that would be the simplest way to do it.

Q. It would make a difference, however, whether they were ratcheted at an angle or ratcheted straight, would it not? A. No. [1987—1899]

Q. It would not make any difference? A. No.

Q. It would not make any difference, the position of the holes, either, according to your opinion, upon the ratcheting, would it?

A. Not if they had the proper appliances for doing the work.

Q. It would not?

A. It would not—in my opinion it would not.

Q. In other words, in your opinion, it would take just as long to ratchet those holes in these ribs in one position as it would another?

(Testimony of Fred A. Gardner.)

A. Practically so; yes.

Q. How much time did you allow for ratcheting the holes through?

A. I don't remember, because I don't remember how many ribs there were.

Q. How much time would you now allow for ratcheting the hole through a single rib?

A. I would not allow anything until I saw the rib or had a description of it given, the sizes and the number of them, and the length of ratchet that would be necessary to work in there, and the rest of the things, as we had when we made our estimate.

Q. Who gave you that description?

A. Mr. Kinsman.

Q. And the length of ratchet, he gave you also?

A. He gave the distance between the ribs, from which we could determine our own sizes for the ratchet. As near as I remember it now, that is the way we made our estimate. Of course, that is a couple of years ago, you know, all of which has to be taken into consideration in taxing a man's memory in regard to these things.

Q. Do you remember, Mr. Gardner, what the description of the situation of the valve was that was given to you at the time you made those figures on this head? A. What valve? [1988—1900]

Q. This cylinder-head; isn't it number 92?

A. We have not been talking about any cylinder-head.

Q. Of the I. P. valve chest?

A. What is the question?

(Testimony of Fred A. Gardner.)

(The last question repeated by the Reporter.)

A. I don't know anything—the valve has to appear as on the sketch; no description of the valve given that I remember.

Q. Then you did not take into consideration the situation at all, did you, of the valve at the time the head was removed?

A. Do you mean the valve that operates in this valve chamber or the valve that is screwed on the outside of it, or on the outside—I don't know what valve you are talking about.

Q. I mean the valve that operates inside.

A. It was not a matter under discussion in connection with this particular item any more than it had to be removed to take this head down as I remember it now. I am not positive in regard to that. But I think it was necessary to remove that valve to take out the valve stems, to allow taking out the valve stems, and taking the head down—the head had to be taken down to do the lining on the ribs, if that is what you mean. I do not quite follow what you are trying to get at. If you want a description of what is necessary to get down that head, as near as I recall it now, that valve would have to be removed to get that head down.

Q. I am not asking you what is necessary now. I am asking you of what was given to you or described to you at that time as the work was performed.

A. In regard to that part of the work, in connection with that valve, there was nothing described. We did not need any description; we looked at it and

(Testimony of Fred A. Gardner.)

found what was necessary from past experience, in doing that kind of work. I do not remember whether any description was volunteered or not; possibly it was, but it was not necessary if it [1989—1901] was.

Q. I understand you, now, that you can give me no idea at all of the amount of material you allowed for in this estimate for any particular piece of work—you can give me no idea of the number of hours that you allowed for any particular piece of work, and you can give me no idea of any detail whatsoever relating to your calculation.

A. By taking the ship itself under the same conditions that we made this estimate, we can give you any detail that you want, but from just taxing one's memory as to what particulars were gone into at that time, it is impossible to give it to you.

Q. But I have offered to give you details, and yet you tell me you can't figure upon it.

A. You have not given me exact details, so far as I know.

Q. I have given you some details which you have said you were unable to figure upon.

A. You have not given me sufficient details, and you have not given me the ship as I had it originally to figure from; if you give me the ship as I had it originally I will figure this to your satisfaction, I think we will be able to prove to you.

Q. Where is the ship now?

A. I don't know. We made this estimate under—

Q. (Intg.) Just a moment. You just answer the

(Testimony of Fred A. Gardner.)

questions instead of arguing the case. Now, I gave you certain details concerning the plates put upon the after end of that ship and you declined to make any figures upon them. Isn't that true?

A. Not declined, no. Just simply that it is impossible with the details that you have been able to give me to make an intelligent estimate of that work.

Q. You now tell me what details you require to make an intelligent [1990—1902] estimate.

A. That would be suggested by seeing the ship just as it was suggested at the time we made the estimate.

Q. You cannot now suggest anything from this sketch which shows exactly what was done upon that ship?

A. It does not. I dispute the statement that it shows exactly.

Q. Well, assume that it shows the nature of the work that was done upon that ship. It certainly shows that a piece was put around the propeller arch in the manner indicated there, does it not?

A. I do not think that it does. This shows it in one piece, and I am almost positive that it was not.

Q. Let us not get—

A. (Contg.) You said that shows it, and it does not show it.

Q. It shows the fact that such piece was put there, doesn't it?

A. It shows that a piece was put there, or some piece.

Q. A piece was put there? A. Or some piece.

Q. Immaterial. I have asked you to assume that

(Testimony of Fred A. Gardner.)

it was a single piece, and I have given you sizes and dimensions for it, and you have refused to make any figures because you said you are not in the state of mind to do it.

A. Not in the state of mind to figure on this job without the ship in front of me as I had it before to be used in evidence against my judgment as to what the nature of that job that I remember was.

Q. Now, Mr. Gardner, you are parrying again with me. I have told you before you have nothing to do with the comparison that I am to make or the figures. I have a perfect right to test your ability to make figures in any way I see fit, and I have given you the details of any job, whether it is a hypothetical job or this job, and you refused to make any figures upon it at all, you said before, because you were not in the [1991—1903] state of mind to do it now; you wanted to get into your room alone with your measuring instrument and things of that sort. Now you have changed your position, you say that you cannot do it without you see the ship. Is that right?

A. I say that I can do it under the same conditions under which it was done before. I say that I can do it under the conditions under which estimates of this description are usually made.

Q. Do you mean to say that you never make estimates of this description except that you see the ship? A. This description?

Q. Yes. A. I never have.

Q. You have never made estimates of building a new ship then, have you?

(Testimony of Fred A. Gardner.)

A. Quite a different story. You have got drawings and specifications describing very minutely every item that enters into the construction of a new ship, and not a comparison with old work by any manner or means.

Q. Not as a comparison with old work? A. No.

Q. Much easier? A. Decidedly easier.

Q. You have made estimates upon old work where you have not been able to see the work, have you not?

A. Not estimates, no.

Q. You never have? A. No.

Q. Never made them? A. I have made a guess.

Q. On bids?

A. I have made wild guesses in my own mind that I thought would double perhaps what the job was worth and probably told the owners to that effect. In the desire to have something to go on they have accepted those figures, which I do not consider an estimate at all; it is merely a guess.

Q. You never made any bid, have you, then, upon work that was not uncovered and could not be uncovered until after the work began?

A. Yes, very much in the same way that I speak of [1992—1904] this figure, that is a guess.

Q. Then all of your estimates, or a large part of your estimates made for repair work are wild guesses? A. Not one-tenth of them.

Q. Not one-tenth of them?

A. No. Sometimes you have to make a guess. But we did not have to in this case, because here the work was what had been done.

(Testimony of Fred A. Gardner.)

Q. Now, as a matter of fact, Mr. Gardner, you have testified that you did not see the work, that some of the work you saw, some of the work was simply described to you, and some of the work by the physical condition of it could not either be seen or described to you properly. Now, isn't that a fact?

A. I would like to refer to my testimony in regard to that.

Q. Is that the only answer you can give me?

A. I will answer after I see my previous testimony. I would like to see what I said in regard to that. You said that I made certain statements. I would like to see whether I have or not.

Q. If you want to look over your testimony you are perfectly welcome to do it. I have stated it correctly.

A. Where have I made the statement that you refer to?

Q. All through your examination.

Mr. McCLANAHAN.—I submit that the witness has taken up, in his examination, each of the 140 items and has therein stated whether he has seen or whether he has not seen the work, and has also stated his reasons for considering the estimate where he has not seen the work sufficient.

Mr. FRANK.—Well, we will argue that to the Court. That is not examination. Whether he has done it, or did not do it is a matter of evidence. That can be verified by the testimony as it stands, which the Court will have to look [1993—1905] over itself if the witness does not testify to it now.

Mr. McCLANAHAN.—You have stated that all

(Testimony of Fred A. Gardner.)

through his examination he has made that statement.

Mr. FRANK.—Q. Go ahead and answer my question. A. Give me the question please.

(The last question repeated by the Reporter.)

A. Referring to my testimony to the effect that some of the work could not be seen, I think that is correct. But all of the work necessary for an intelligent estimate of this work could be seen. Will you read that question once more, please?

(The question again read by the Reporter.)

Mr. McCLANAHAN.—I think the question has been answered.

Mr. FRANK.—Is that so? Do not instruct the witness and we will get along better.

Mr. McCLANAHAN.—I am not instructing the witness.

A. I do not recall that the physical condition of any of the work was of such a nature that it could not be described.

Mr. FRANK.—Q. That is your present recollection? A. That is my present recollection.

Q. And you have already told us it is your present recollection, being some months subsequent to your former recollection, is very much at fault. You are unable to recall a great many things that you could formerly recall. Is that right, Mr. Gardner?

Mr. McCLANAHAN.—Is this arguing with the witness, Mr. Frank?

Mr. FRANK.—No, I am not arguing with him. I am asking him a question, and I expect an answer to it.

(Testimony of Fred A. Gardner.)

A. That is a statement I made, but I do not see it has any [1994—1906] effect on the fact that this work could be described.

Mr. FRANK.—We will leave that to your counsel to argue to the Court.

Mr. McCLANAHAN.—I object to that question as entirely uncalled for.

Mr. FRANK.—It is not uncalled for because this witness is constantly arguing this case instead of answering the questions.

Mr. McCLANAHAN.—How can he help arguing the case when counsel is arguing the case with the witness.

The WITNESS.—I want to apologize if I am doing anything in my ignorance of the law which I should not do.

Mr. FRANK.—I do not want to be disrespectful, but I am sorry to see you limit the word “ignorance.”

The WITNESS.—Good. I appreciate that thoroughly, if it is on me, Mr. Frank.

Mr. FRANK.—Q. Now, returning for a moment to the tank-top, Mr. Gardner, you say you saw that work. What was the condition of the bolt-head when you saw it? A. Of what?

Q. The bolt heads on the tank work. I believe you told us you counted the bolts.

A. I don't recall that I did.

Mr. McCLANAHAN.—Was it not Mr. Heyne-mann? A. I do not think that I said I did.

Mr. FRANK.—Q. You don't know whether you said you counted the bolts?

(Testimony of Fred A. Gardner.)

A. I don't think I did.

Q. Do you remember what means you took of ascertaining the method of the attachment of the angle-iron underneath? A. What is that?

Q. Do you know what method you took to ascertain the number of angle-irons underneath, new angle-irons?

A. Let me see [1995—1907] my testimony on that, will you?

Q. Certainly.

A. (After examination.) That is all I recall having said about it.

Mr. McCLANAHAN.—That is all he said represents no cross-examination.

The WITNESS.—That is all I recall.

Mr. McCLANAHAN.—Q. You refer now to your testimony at page 1824? A. Page 1824.

Mr. FRANK.—Q. You have not read your whole testimony; this page 1824 was pointed out to you and you say that is all you now recall?

A. I think that I said it first—I take that back. That is all I recall at the present time.

Q. We will assume, then, that you did not say it. Let us take it up now. What was the nature of the bolts that were used in the tank-top?

A. For what purpose? Which bolts do you refer to?

Q. What bolts could be used in the tank-top?

A. You are asking about certain bolts. If you tell me what bolts you mean I will answer your question.

(Testimony of Fred A. Gardner.)

Q. Don't you know what bolts could be used in the tank-top?

A. I don't know. That is the question. You have asked me a certain question. You tell me what bolts you mean, and I will answer to the best of my ability.

Q. What bolts are used in the tank-top?

A. You have set aside the other question; is that the idea now?

Q. Answer my question, Mr. Gardner.

Mr. McCLANAHAN.—Which one?

Mr. FRANK.—The one I have just asked him. Let him answer that question now. You needn't attempt to interrupt my examination. [1996—1908]

A. Well, there are some bolts that might be used on the manhole plate; probably some bolts used as surface bolts, and in drawing the plates together before they rivet them. As I recall this, there were no bolts in the seams of these plates; possibly there were some in the manhole plate.

Q. How were the rivets served, put in? What was the nature of the rivets there? You spoke of the rivets as fastening between the plates. A. Yes.

Q. How were the rivets put in?

A. Why, they were probably put in by first being heated and put into the holes and hold around the back and riveted up.

Q. Not probably. I am not asking for what probably was done, but I am asking for facts.

A. That is the usual method of putting rivets in.

Q. What was done?

A. The rivets were probably heated; that is what

(Testimony of Fred A. Gardner.)

we assumed when we made this estimate; placed in the holes, hold around on the inside of the tank, and hold around the back, and what points of the rivets remained were riveted over. That is the manner that I suppose it was done in.

Q. How were they finished off then?

Mr. McCLANAHAN.—Do you understand that question? A. I do not.

Mr. FRANK.—Q. Were they countersunk rivets?

A. I would not be positive about that, but I think they are.

Q. You think so?

A. That is the plates were countersunk and the rivets riveted into these countersinks.

Q. Into the countersinks? A. Yes.

Q. And painted over?

A. And painted over, you say?

Q. Yes.

A. Possibly. When I examined it though, there [1997—1909] was no evidence of any *paid*. There was lots of rust.

Q. Lots of rust on it?

A. Yes. The new work had the appearance of less rust than the old work, however. It is pretty easy to perceive as to where the new work began and the old work that had not been disturbed was.

Q. Now, what is the method that you allowed for the removal of the old work in your estimate?

A. Removal of the old work?

Q. Yes.

A. Cutting out the rivets and removing the plates,

(Testimony of Fred A. Gardner.)

hoisting them out from the hold—that is as nearly as I can recall what we allowed for now.

Q. When you saw them the second time they were covered with rust?

A. Not covered. The plates generally were more or less rusty.

Q. Did you compare—

A. Just a minute; will you let me have that question again?

(The last question repeated by the Reporter.)

A. Why, the second time. When I saw them I don't remember it was the second time or the first time, but when I saw them they were rusty.

Q. Well, I am referring to the new work showing rust. A. Yes.

Q. Did you look at any of the old work at that time?

A. The work immediately adjacent to the new work; yes.

Q. What work do you refer to as the work immediately adjacent?

A. Well, there was a plate at the after end of the hold and one at the forward part of the hold, and part of the shaft alley plating as I recall it now. It was only a part of the tank-top renewed on the port side, and where it joined these old plates you could see where the new and old rivets started [1998—1910] and left off.

Q. Mr. Gardner, with reference to scaling work, won't that work vary very extensively according to the amount of scale and according to the particularity

(Testimony of Fred A. Gardner.)

with which the work is done?

A. What kind of scale do you refer to?

Q. I am asking you in the combustion chamber?

A. Well, it depends pretty largely on the nature of the scale. The average scale from salt water does not make a great deal of difference; in fact, if it is heavier it is inclined to come off easier than if very thin.

Q. You want us to understand that the amount of scale does not make any difference in the amount of labor to remove it?

A. Possibly there might be some little difference, but it is hardly measurable.

Q. And also you want us to understand that the scaling of the same combustion chamber by two different men would not vary very extensively with respect to the particularity with which the work was done?

A. I think it would depend upon the supervision more under which the work was done, than the individual who was doing the work.

Q. It would vary, would it not—those are elements that would make it vary very extensively?

A. Not very extensively, slightly.

Q. Only slightly?

A. Only slightly, according to my experience.

Q. Did you make any allowance for labor necessary to get at it, get in to it, get at the work?

A. What are you referring to?

Q. I am talking of the combustion chamber.

A. I think you will find we made every allowance

(Testimony of Fred A. Gardner.)

that is [1909—1911] ordinarily made under such conditions, so far as we know.

Q. What allowance did you make? That is a very convenient answer, Mr. Gardner. I want more particulars.

A. Will you let me have the question again?

(The last question repeated by the Reporter.)

A. Yes.

Q. What allowance did you make?

A. Every allowance that was necessary.

Q. Well, what are those?

A. Taking off the manhole plates, telling a man to crawl in there and go to work.

Q. That is the only allowance?

A. That is about all that I know off. I really did not grasp what your question was, Mr. Frank, when you first asked it, or I would not have taken all this time.

Q. In your experience at the Union Iron Works, what, if anything, did you have to *do the* detail of keeping the time of the men?

A. Well, practically nothing to do with the absolute detail. There were regular timekeepers appointed who had special instructions from the office to take care of all time, and simply would indicate to the foreman on the job what the number of the job might be, and the time would be kept by timekeepers.

Q. How was the time kept there?

A. Well, I would not be able to give you much detail with reference to that really, any more than that

(Testimony of Fred A. Gardner.)

there were timekeepers who went around among the men at various times in the day, saw them individually, and kept the numbers and time that they were working on each job, checked that up with what was called the straw boss, their sub-foreman—their sub-foreman determined as to whether the men were turning in the correct amount of time or [2000—1912] not.

Q. What men were turning in the time?

A. The men working on the various jobs.

Q. You mean the individual men?

A. The individual men.

Q. Would they turn in their time?

A. They would give it to the timekeeper as he came along and he later would.

Q. In what way?

A. Verbally, usually, as I recall.

Q. They kept no record of their time?

A. Not individually.

Q. Nobody kept any record of the time unless it was the timekeeper going around with his book and noting the time as you have stated?

A. Oh, I would not say that positively. It is quite possible that the men kept a record of their own time.

Q. Well, that never was turned in to the office—that had nothing to do with the office records?

A. So far as I know that did not. I think possibly it was turned in during the later part of my stay at the Union Iron Works, but I am not positive in regard to that.

Q. Turning to 64, Mr. Gardner, “bored out air-

(Testimony of Fred A. Gardner.)

pump link, made and fitted new parting pieces, planed off brasses, made new locking collars, shortened binder bolts, trued up pins, and refitted"—did you receive any description of that work from Mr. Kinsman or anyone else at the time you made the figures?

A. To the best of my recollection we looked at the job, saw what was necessary as described from this list, and later discussed it with Mr. Kinsman. I am inclined to believe as nearly as I can recall at the present time that was the method pursued.

Q. Is that a recollection, or is that only an assumption on your part about discussing it with Mr. Kinsman?

A. That is as near as I recollect it at the present time. [2001—1913]

Q. Do you remember whether or not the figures that were made upon it were made with the air-pump and other machinery described there in its normal situation, or whether there was anything unusual about it?

A. Oh, no. I think we took cognizance of the fact that part of the work made it necessary to disconnect all this stuff and do a very large part of the work, aside from the work there are other items for which they had contracted, or supposedly had contracted.

Q. Well, outside of that there is nothing else that you have any recollection of attached to that work, is there, on which you figured?

A. I don't know whether my previous testimony would refresh my memory or not, but I would like to

(Testimony of Fred A. Gardner.)

look at it, at least. This testimony reminds me of binder bolts that had escaped my memory at the present time.

Mr. McCLANAHAN.—You are referring to your testimony on what page? A. On page 1843.

Mr. FRANK.—Q. Outside of that there is nothing else that you figured upon. Your testimony on page 1843 practically states everything that you knew about the subject, does it not?

A. That is all I recall at the present time.

(A recess was here taken until 2 P. M.) [2002—1914]

AFTERNOON SESSION.

FRED A. GARDNER, cross-examination resumed:

Mr. FRANK.—Now, in your experience over at the Union Iron Works, Mr. Gardner, have you or have you not found a large variation in the results of labor at different times?

A. Not if wisely selected.

Q. Well, haven't you found such a variation?

A. I say not if the labor has been wisely selected, the right kind of a man for a job has been put on it, there should not be a great deal of variation.

Q. Isn't it a matter of fact that with the same men it is found over at the Union Iron Works that there is a large variation that results with their labor?

A. Well, possibly that is a fact, due pretty largely, I think, to labor conditions, comparing the products of a certain class of men to-day as with the products

(Testimony of Fred A. Gardner.)

of these same men six years ago, you will see, through being dominated by the union organizations, that the incentive for doing a reasonable day's work has been taken away from them, you might say, as their work has been limited by their leaders to a certain output as governed by the output of the poorest man, so as to get that poor man employed; I suppose there has been a difference.

Q. You think that is a difference that has come into existence within the last four or five years?

A. Well, possibly a little further back from that—well, I think about five or six years ago, yes.

Q. Now, haven't you also found a difference in the products of the same men, irrespective of the conditions that you are now [2003—1915] speaking of, a large variation?

A. Why, I cannot say that I have noticed it particularly; no.

Q. You have not noticed it?

A. Not the same men, the same class of work.

Q. You would not undertake to say that that is not the experience of the Union Iron Works?

A. Oh, no, I would not undertake to say anything in behalf of the Union Iron Works.

Q. I did not say on behalf of the Union Iron Works. I am asking you whether you would undertake to say that that was not the experience at the Union Iron Works, and I will enlarge that by saying during the time that you were there.

A. Taking men of the same kind and the same class of work at the Union Iron Works?

(Testimony of Fred A. Gardner.)

Q. Yes, different times.

A. At different times—I cannot say that I have noticed any marked difference in their output except as affected by the labor conditions I just mentioned. I think that there has been a decided difference in the last probably six years in the output of the same men on the same kind of work at the Union Iron Works as compared with what it was then.

Q. Now, Mr. Gardner, I show you a sketch in Heynemann's Exhibit No. 3, No. 135, a patch, and ask you whether or not that sketch does not give you sufficient detail to reproduce the figures that you made upon it.

A. I would like to see the specification it refers to here.

Q. What do you mean by specification?

A. I do not recall. There is a note here at the beginning: It says specification called for 897—there must be *some explanatory* in this specification.

Q. There is nothing at all in the specification referring to [2004—1916] that. The specification called for a column.

A. Isn't there an exhibit here that was handed to me by Mr. Diericx, stating that certain work was done in compensation for work that was not done? Is that not one of the items that is specified, I think in one of the exhibits—I think it refers to this patch?

Q. What has that got to do with making figures on the patch?

A. It would enable me to refresh my memory in regard to the lacking of details possibly, in this sec-

(Testimony of Fred A. Gardner.)

tion. There is no radius given for the fillet of this casting in the corners. There is no radius given of these ribs as shown on this sketch. It simply enabled us at the time when we were doing the work to refresh our memory for a matter of a few hours, possibly, from the time we left the ship until we got to the office and finished the estimate. This part of the estimate was probably made roughly on board the ship and corrected afterwards.

Q. Well, now, what is the thing you say that is lacking there?

A. There are no dimensions given of the fillets; the radius of these ribs is not given, showing what that clamp is from the top there. These figures are evidently taken as straight lines, just to get at it roughly while aboard the ship.

Q. Anything else?

A. That is quite enough, as far as that is concerned; it would make it impossible to form any correct estimate on it.

Q. Isn't it possible to make any figures on this sketch with the figures you have got?

A. You can guess at it, but cannot make a fair estimate on it.

Q. What do you call the fillets?

A. Well, give me another piece of paper. I will put it on a little larger scale and describe it to you. For instance, instead of coming down [2005—1917] at right angles like that (illustrating), it comes down with rounded corners, something in that manner, which gives a cross-section in there which is of con-

(Testimony of Fred A. Gardner.)

siderable importance, that you cannot get any estimate for; you have not the radius of this partial circle formed by this rib to determine how much of that should be taken as the square surface on that rib from which to estimate the weight of these ribs—there are several of these ribs. It shows two here, but I think there are more of them.

Q. These particulars in which you have pointed out a lack of data affect only the weight of the patch, did it not? A. No.

Q. What else did it affect?

A. It would probably affect the labor on the patch.

Q. In what way?

A. Where this bolt comes down here the chances are it comes right in the way of this fillet; that being the case the hole is drilled through here (illustrating); then a hole would be drilled through here, then a hole through here, and you would have to counterbore down to that to let the head of that nut come out; it depends on how many there are, how much labor would be in this counterboring and bolting on this. [2006—1918]

Q. Where did you get the information when you made your figures that you say now is lacking?

A. Right aboard the ship.

Q. Right aboard the ship? A. Yes.

Q. Why did you not preserve that information upon this sketch if it was so material, when you have preserved so much detail as you have on that sketch?

A. Very little detail there. It is only quite general.

(Testimony of Fred A. Gardner.)

Q. It is quite general? A. Yes.

Q. What other detail would you require except those two facts?

A. Well, there is the handling of this to and from the shop to the ship.

Q. Did you have that when you made the figure?

A. Well, we got it right aboard the ship. We could see what had to be removed, to be handled; we could see what clearance we had—we could see what means we had for moving the part, and doing all things in connection with the installation of that patch that I do not recall at the present time, but that would attract my attention if I was aboard the ship.

Q. But you say that you took these sketches at the time you were aboard the ship and then that you made your figures afterwards and away from the ship?

A. We made parts of the figures aboard the ship and part of the figures in the office at various times. We sometimes made little sketches perhaps—

Q. (Intg.) I am not asking you about these others. I am taking a particular sketch?

A. I doubt whether that particular sketch would appeal to a man knowing nothing about this job, in such a manner as to enable him to go ahead and make that bid. I think you will find upon inquiry that a man would not be able to make that [2007—1919] from that sketch. Still there was enough there after we had seen it to call back to our attention the details in connection with this, and therefore enable us

(Testimony of Fred A. Gardner.)

to make an estimate of it.

Q. I understand you, you are unable now at this time to make any estimate on that either?

A. Yes, without making an examination of it again.

Q. Is there any part—

A. (Intg.) This is simply a matter of extent of personal memory. My memory is good enough to remember the various details in connection with it to give you a reasonable estimate of the value of that job.

Q. Is there any one of these 140 items upon which you have figured that you can now figure and reproduce your figures upon?

A. I think we can reproduce our figures on any of them under the same circumstances under which they were made.

Q. I am asking you now to do it here.

A. No, I cannot. I can do it under the same conditions under which they were made before.

Q. Well, by that you mean going back to the ship?

A. Yes, and doing it over again, and the other things that we had before to get at these figures, the days and days we spent doing it.

Q. You cannot tell me now on any one of the 140 items here how you figured labor?

A. Why, certainly I can tell you how we figured labor.

Q. What did you do?

A. We took the hours on the jobs, estimated the time in doing it, and took the rate out of his bills. We did not question whether the bills were correct

(Testimony of Fred A. Gardner.)

or not; we used their own rates, which we did not consider correct, as far as that was concerned, so far as perfectly fair, used their [2008—1920] rates on material—

Q. (Intg.) That is very nice, but in the first place you did not use their hours, did you?

A. We certainly did. I do not know why we did not use those hours; we took so many hours, we did not *carry* anything about their difference, if a job took five hours—

Q. Wait a minute.

Mr. McCLANAHAN.—Let the witness answer.

Mr. FRANK.—He is a very discursive witness; we will not get anywhere if we allow him to talk until he gets through.

The WITNESS.—It is all in the record that I said.

Mr. McCLANAHAN.—We are perfectly satisfied with the way you are conducting yourself.

Mr. FRANK.—Of course, you are.

Q. Now, when you say that you took their hours, you mean to have us understand that you took the number of hours that were actually put in on the work, or that you estimated the number?

A. We took a reasonable estimate of the number of hours and took their rate per hour and applied it to that number of hours.

Q. Then you did not take their hours, but you estimated for yourself the number of hours, did you not?

A. Yes, we estimated the number of hours.

Q. Now, in estimating the number of hours you estimated the actual hours worked, that you thought

(Testimony of Fred A. Gardner.)

it would have taken to have done that job, did you not?

A. No, I think, as a matter of fact, to come right down to fixing that, we estimated on about one-third more time than ordinarily taken for that kind of work in that we wanted to be absolutely on the safe side.

Q. You say you think; this business of thinking at this late day is not quite as fair as you claim it to be, and it was evidently [2009—1921] wanted to be on the safe side for some other purpose. Now, I want your recollection. You do not remember anything else but you think it is probable that—

A. (Intg.) I would say more, to the best of my knowledge and belief.

Q. Well, to the best of your knowledge and belief.

A. We took more hours than we really thought were absolutely necessary to do the job.

Q. Is that the best that you can say, to the best of your knowledge and belief?

A. To the best of my knowledge and belief and recollection at the present time.

Q. You won't swear definitely that you did or did not, will you?

A. That we took more hours in many cases than we actually thought were necessary to do the work.

Q. Yes. A. Yes, we did.

Q. Now, you have changed the proposition entirely, Mr. Gardner?

A. I don't recognize that I have.

Q. Well, all right. We will not argue whether

(Testimony of Fred A. Gardner.)

you recognize it or not. You said first you took one-third more hours than you thought was proper upon that work. Now, you say that in certain cases you took more hours. A. Many cases.

Q. In many cases? A. Yes.

Q. Now, you wish to limit that to many cases?

A. Yes.

Q. And not to the entire work?

A. Why, certainly. I suppose there were some of these jobs—as near as I can remember now—that I am not sure as to how much time they would really take, and if there was any doubt, we put in a good deal more time than we really thought was necessary.

Q. Mention a certain instance where you put in more time in those 140 items there, and give us the time that you put in there. [2010—1922]

A. I know there was one there we put \$500 in for floor plating, and I know we put in more labor than we had any business to.

Q. Is that so? A. I think so.

Q. That is the case where you limited the floor plating to what went over the shafting?

A. No. The floor plates generally at the back of the engines that were covered by another specification, for the installation of a circulator, and in spite of that, when we made our estimate we found that was high, but we did not eliminate it from the extras; we found that these stern frame coverings were low but we did not eliminate them from the extras; that is the way we went through that finally, and when we got all through—

(Testimony of Fred A. Gardner.)

Q. (Intg.) One moment. Any other item?

A. I don't recall any other just now.

Q. Well, when you say there were many items, you are speaking again to the best of your knowledge and belief? A. Yes.

Q. Instead of speaking as a fact?

A. To the best of my knowledge and belief and memory at the present time.

Q. And the whole of your testimony, now, you wish to qualify by the statement that it is only to the best of your knowledge and belief; is that right?

A. I don't know that that is any qualification.

Q. Why do you not swear to it absolutely? Why do you say to the best of your knowledge and belief?

A. Because I cannot know positively any more than to the best of my memory at the present time that is what we did.

Q. Yes.

A. I am depending upon my memory altogether.

Q. Then you are not prepared to swear positively to any of this matter that you have been talking about now? A. I don't understand your question.

[2011—1923]

Q. Read the question.

(Last question repeated by the Reporter.)

Mr. McCLANAHAN.—I object to the question as being unintelligible.

A. I do not understand it.

Mr. McCLANAHAN.—Reframe the question.

Mr. FRANK.—Instead of making a legal objection you have simply given the witness to say that

(Testimony of Fred A. Gardner.)

he does not understand it.

A. I do not understand it.

Mr. FRANK.—Read the examination back away, Mr. Reporter.

(The Reporter reads the examination.)

Q. Do you understand the question?

A. I cannot say that I do.

Q. You consider your memory fallible about this matter, do you not? A. What is that?

Q. You consider your memory fallible with respect to what you are testifying to now?

A. Why certainly not.

Q. You do not? A. No.

Q. Why do you affirm it on your best information and belief? Why do you not state positively these facts?

A. Well, because it is simply stating what I really believe, that is all; that is as far as I can go. I came up in the elevator just now, and I cannot swear whether there were five men in the elevator or three. I know there was more than one.

Q. No, but you would not take figures upon the number of men in the elevator, and spend hours and days upon it as you have testified here, in arriving at the correct and fair estimate as to the number of men in that elevator?

A. No. On the other hand this was only a few minutes ago and the other was two years ago.
[2012—1924]

Q. Then you have no memory about it. Your memory, then, is in the same situation as it is re-

(Testimony of Fred A. Gardner.)

specting the men that came up in the elevator; is that so?

A. I remember as much as a man ordinarily would in connection with a job of that kind at this late day. I think I have an average memory, nothing exceptional.

Q. Why didn't you preserve the details of these figures, if it is a matter that you cannot carry in your memory?

A. I did not suppose that there would ever be any occasion to use them or call for them.

Q. How could you fail—

A. (Intg.) I was asked to get an estimate of this job as a fair and reasonable cost of the entire job, which I produced.

Q. How could you fail to understand that the details would be required—your figures?

A. That is all formed on the same basis, that for the last several years I have been making estimates for Lloyd's Agent, and I have never made a detailed estimate yet.

Q. These are not contested cases?

A. I don't know whether they are or whether they are not.

Q. Don't you keep a figuring book, Mr. Gardner?

A. No.

Q. That is a common practice among professional men, to keep a figuring book, is it not?

A. I believe it is, in some cases. They have occasion to revise them so often, due to changing conditions, that they are not of much value to them as I

(Testimony of Fred A. Gardner.)

find in my experience.

Q. In these cases where you increased it as you say over what you in your judgment thought it would require you did it because you had a doubt. Is not that so? A. A slight doubt.

Q. You had a doubt?

A. Therefore to compensate for that [2013—1925] doubt we put plenty of time on it.

Q. Now, the time that you put, the total amount of time that you put on in those instances, and the time in the instance where you did not put it on, as you allege, was actual working time, was it not?

A. Actual working time, but when we figured the estimates we made an allowance for overtime—

Q. Well—

A. (Continuing.) —which was arbitrarily added.

Q. This was actual working time required to finish that job? A. Yes.

Q. And to that which you considered the actual working time you applied the rates that were charged in the bill? A. Yes.

Q. Don't you know, as a matter of fact, Mr. Gardner, that the rates that are charged in the bill were below the current rates?

A. I don't know it to be a fact.

Q. You don't know that? A. No.

Q. Don't you know as a matter of fact, that in order to get the sum the same as if they were charging the actual number of hours by the current rates, they took those reduced rates and charged a ten hour

(Testimony of Fred A. Gardner.)

day where an eight or an eight and a half hour day was employed?

A. Just read that over again. (Last question repeated by the Reporter.) I did not take into consideration their hours per day or anything in connection with it. We took the actual hours worked, applied their rate per hour to it.

Q. Didn't you know at the time that you did that that the rate that you applied to those hours was not the true rate or the current rate to be applied to actual hours?

A. I knew that it was a good liberal rate over and above cost, and carried a good profit with it.

Q. You did? A. I did. [2014—1926]

Q. You do? A. I do.

Q. Answer my question now, after you have volunteered that, did you know that it was not the current rate? A. I do not.

Q. You did not? A. I did not.

Q. Do you know what the current rate is?

A. At the present time?

Q. At that time or the present time?

A. For what? What kind of labor?

Q. For labor of a machinist, say?

A. Certainly. You have a list of all the current rates.

Q. What is the current rate of a machinist?

A. To-day I think it is \$6.00 a day.

Q. What kind of a day? A. An 8-hour day.

Q. An 8-hour day? A. Yes.

Q. So when you reduce that to so much per hour

(Testimony of Fred A. Gardner.)

what would it be? A. \$6.00 divided by 8.

Q. \$6.00 divided by 8? A. Yes.

Q. 75 cents an hour? A. Yes.

Q. Now, was not that the same rate for machinists at the time this work was being done?

A. I don't recall just now, but I do not think it was; I think it was 55 cents an hour. I won't be positive about that, though.

Q. Why do you volunteer it, if you are not positive?

A. I have not volunteered anything. You asked me to give an opinion and I have done so.

Q. I have asked you for your knowledge of the fact, not to express an opinion.

A. I knew what the rates were when I made that estimate. I don't recall just now what the rates were at that time.

Q. You made that estimate when? [2015—1927]

A. Somewhere back in April, around there somewhere, in 1910, around there; I don't recall the exact date.

Q. Are you prepared now to tell us what the rates were at that time?

A. Not any more than referring to these bills.

Q. That is the only knowledge you had?

A. That was all that was necessary.

Q. Well, there is somebody else will judge whether there is anything else necessary.

A. That is all we considered necessary. We will put it that way, if you please.

Q. You made no attempt to establish the current

(Testimony of Fred A. Gardner.)

rate of 8-hour day?

A. We are not interested in the 8-hour day at all. We had no interest in the number of hours in the day that they worked at all, because there were some jobs that did not reach over the day.

Q. The rate would simply be the same?

A. We simply took the hours actually worked and applied the rate in that bill; that is all we did.

Q. That is all you did?

A. That is all we did; that settles it.

Q. I think that clears that up. That is all.

Redirect Examination.

Mr. McCLANAHAN.—Q. Calling your attention, Mr. Gardner, to the sketch found on the last page of Heynemann Exhibit 3, which is the sketch Mr. Frank has been examining on, and covers item No. 37, the line of protection plates, that sketch was made when the ship was out of the water, of course?

A. Yes.

Q. Calling your attention to Heynemann Exhibit No. 1, which is your estimate of April 29, 1910, I ask you if at that time you had seen the outside under-bottom of the ship. [2016—1928]

A. We had not.

Q. Then this sketch in Heynemann Exhibit No. 3, was made after you had seen the outside under-bottom of the ship and after April 29?

A. This one (pointing)?

Q. Yes. A. Yes.

Q. What was the purpose of making that sketch after you had already made an estimate on the work

(Testimony of Fred A. Gardner.)

as embodied in your letter of April 29, 1910?

A. For the purpose of comparing it with the figure that we had estimated on without seeing it.

Q. Is that the only instance of similar examinations?

A. There was tanks and this and the wheel.

Q. I am not asking you to enumerate them, but were there other instances?

A. I think there were others; I do not recall just what they were at the present time.

Q. Now, passing to the bronze patch which you have been examined on, item No. 135 of "Kinsman Exhibit No. 2," as I remember your former testimony, you testified that you had figured on the value of the original specification work, but that in making up your estimate of April 29th you took the estimate of the United Engineering Works on their bid?

A. And added to it the extras.

Q. That is correct? A. That is correct.

Q. This bid was then figured on by you—

Mr. FRANK.—I object to that way of examining the witness. You are practically testifying yourself.

Mr. McCLANAHAN.—Let me finish the question and then you can make your legal objection.

Mr. FRANK.—When you have finished the question my objection is no longer of any use.

Mr. McCLANAHAN.—You do not suppose you can sidetrack me [2017—1929] by cutting me off in the middle of a question.

Mr. FRANK.—I could not sidetrack you if I tried.

Mr. McCLANAHAN.—Do not attempt it. Make

(Testimony of Fred A. Gardner.)

your legal objection and the Court will give weight or not to the question.

Mr. FRANK.—That is very nice.

Mr. McCLANAHAN.—Q. This patch was then figured on by you as being a part of the original specifications and in the end the lump sum as bid by the United was adopted by you in your total estimate?

A. Yes.

Mr. FRANK.—I object to that as testimony given by Mr. McClanahan and not by the witness.

Mr. McCLANAHAN.—That is all the redirect examination that I have.

Mr. McCLANAHAN.—I would like to have you admit, Mr. Frank, before closing our case, that on May 2d, 1910, the respondent tendered to the libelant in full settlement of its claim the full sum of \$22,922.56.

Mr. FRANK.—Is there some correspondence on that subject?

Mr. McCLANAHAN.—Yes.

Mr. FRANK.—With respect to that matter, Mr. McClanahan, I prefer that the correspondence speak for itself. You may put in your letter of May 2d and my reply of May 3d.

Mr. McCLANAHAN.—I will have the letter of May 2d, 1910, addressed to Mr. Nathan H. Frank and signed “McClanahan & Derby, Proctors for Matson Navigation Co.,” marked Libelant’s Exhibit No. 2.

(The letter is marked “Libelant’s Exhibit No. 2” and is as follows:) [2018—1930]

[**Libelant's Exhibit No. 2.**]
"McCLANAHAN & DERBY,
Attorneys at Law.
Merchants Exchange Building.

Edmund B. McClanahan. S. Hasket Derby.
Telephone Kearny 3182. Cable Address "Derby."
Leiber's Code

San Francisco, Cal., May 2, 1910.

Mr. Nathan H. Frank,
Merchants Exchange Building,
San Francisco.

Dear Sir:—

Re UNITED ENGINEERING WORKS v. MAT-
SON NAVIGATION CO.

We hereby tender you the sum of \$22,922.56 in full settlement of the claim of your client against the Matson Navigation Co. for which the above suit has been brought.

Respectfully yours,

McCLANAHAN & DERBY,

EBM. Proctors for Matson Navigation Co."

The letter of May 3d, 1910, addressed to "Messrs. McClanahan & Derby" and signed "Nathan H. Frank," I will ask to have marked Libelant's Exhibit No. 3.

(The letter is marked "Libelant's Exhibit No. 3" and is as follows:)

[Libelant's Exhibit No. 3.]

"May 3, 1910.

Messrs. McClanahan & Derby,
Attorneys at Law,
Merchants Exchange Building,
San Francisco.

Gentlemen:—

United Engineering Works vs. Matson Navigation
Company.

Replying to yours of yesterday enclosing check of the Matson Navigation Company for the sum of \$22,922.56, we have to reply, that the same is not only too late to be of [2019—1931] any avail as a tender, but it is also not made in the proper manner, nor sufficient in amount. In this we make no point of the fact that a check, and not the coin, has been handed to us.

The amount due the United Engineering Works is correctly set out in the libel. This check reads: "Full settlement of account," and, "The payee by endorsement of this check acknowledges full payment of within account." With these statements corrected, we would be pleased to accept the check as payment on account, and look to the Matson Navigation Company for the balance due us as in said libel stated.

The check is herewith enclosed.

Very truly,

Yours, &c.,

NATHAN H. FRANK."

Mr. McCLANAHAN.—We close our case.
[2020—1932]

**[Testimony of Harry Paul Gray, for Plaintiff (in
Rebuttal).]**

HARRY PAUL GRAY, called for the plaintiff in rebuttal, sworn.

Mr. FRANK.—Q. Mr. Gray, you are one of the officers of the United Engineering Works?

A. Yes, sir.

Q. And were such at the time of the repairs which were done on the “Hilonian” and are here in question? A. Yes.

Q. Secretary of that company, are you?

A. Yes, Secretary.

Q. You are the Mr. Gray that is referred to in this testimony by Captain Matson, Mr. Kinsman, Mr. Klitgaard, Captain Saunders and these other gentlemen? A. I am the Gray; I am the one.

Q. Now, do you recollect when the question or repairing the “Hilonian” first arose, when bids were asked for? A. The dates, you mean?

Q. No, I do not care for the dates, but the circumstance; do you remember the circumstance?

A. Yes, I remember it.

Q. Now, at the time these bids were put in, did you have any conversation with Captain Matson?

Mr. McCLANAHAN.—Which bids do you refer to, Mr. Frank?

Mr. FRANK.—The bids on the Respondent’s Exhibit Christy “A” and Christy “B.”

(Testimony of Harry Paul Gray.)

Mr. McCLANAHAN.—I object to the question as being double. The evidence was that the bids were put in at separate times. I would like to have you be a little more specific.

Mr. FRANK.—Q. Go on, Mr. Gray.

A. I certainly had conversations with him. Do you want me to detail it?

Q. I will come to it. Did you ever, during any of the times that you had those conversations make any suggestion to Captain Matson that if the crank-shaft did not have to come out of the vessel you would make a reduction on your bid of a couple of [2021—1933] thousand dollars? A. No, I did not.

Q. Did you make any suggestion of a similar nature? A. No, sir.

Q. What, if anything, was said between you and him respecting putting a timekeeper on the job?

A. That had been talked over for three months preceding the time the job was let.

Q. Confine yourself now to conversations at the time or about the time the job was let. Did you make any suggestion to him as to who the timekeeper should be?

A. There was three men mentioned for timekeeper by me. He asked if I could get him a man to look out for the job and I told him I would do the best I could.

Q. What did you do?

A. There was three parties mentioned. One of them was Jimmie Quinn; another Lloyd Bartmass. I tried to get Bartmass—

(Testimony of Harry Paul Gray.)

Mr. McCLANAHAN.—Q. Who is the third one?

A. Well, that was Putzar.

Mr. FRANK.—Q. Go on, Mr. Gray.

A. I tried to get Bartmass and went to his employer, that is Tyson. I met him on the corner of California and Market, and he absolutely refused to let Bartmass go; Quinn would not go because he was getting \$175 a month where he was.

Q. Was this on your initiative or on whose initiative was that done?

A. He asked me to try and get some one of these parties.

Q. For whom? A. For him.

Q. Did you ever say to him that they were the only men that could work at your yards as timekeepers or anything of that sort?

A. No, I did not. It would be absurd to make a proposition of that kind because we have a dozen different timekeepers [2022—1934] keeping time at our place.

Q. That is, you had nothing to say about who shall be employed as a timekeeper?

A. No, I believe there is two timekeepers over there to-day.

Q. Well, I say you had nothing to say about that?

A. Absolutely nothing; that is a matter of indifference to us who it is.

Q. You were doing it as a matter of accommodation to Mr. Matson?

A. That was the spirit of the whole thing, to accommodate him.

(Testimony of Harry Paul Gray.)

Q. For Captain Matson? A. Yes.

Q. At that time did you know anything about—did you know Mr. Putzar intimately or otherwise?

A. Not very well, no; I did not know him very well.

Q. Did you know anything about his reputation at that time?

A. He had a reputation of being a good engineer; he could not have held the job he did hold if he had not been a good engineer.

Q. Did Captain Matson question you at all about Putzar's integrity? A. I told him—

Mr. McCLANAHAN.—(Intg.) I object to that upon the ground if there is any conversation the witness should give the conversation and you not drag it out by piecemeal.

Mr. FRANK.—As this happens to be a redirect examination, I have a perfect right to do it.

Mr. McCLANAHAN.—Redirect examination? How do you mean?

Mr. FRANK.—I mean rebuttal. I have a perfect right to point the witness' attention to the testimony that it is expected to meet.

Q. Go on, Mr. Gray.

A. What is the question you asked me?

Mr. FRANK.—Read the last question, Mr. Reporter.

(Last question repeated by the Reporter.)
[2023—1935]

Mr. McCLANAHAN.—I do not see what that is in rebuttal of. There is no evidence in the record that Captain Matson made any such statement.

(Testimony of Harry Paul Gray.)

A. Do you want me to answer that?

Mr. FRANK.—Q. Certainly.

A. I told him I knew nothing about the man's integrity; I had no experience with him—practically none.

Mr. McCLANAHAN.—I move that the answer be stricken out as not responsive to the question.

Mr. FRANK.—Q. Did you make any suggestion to him regarding making inquiries himself?

A. Regarding what?

Mr. McCLANAHAN.—I object to that upon the ground that it is leading and suggestive and not rebuttal.

A. Inquiries regarding whom?

Mr. FRANK.—Q. Putzar. Inquiries on his own behalf?

A. I do not think I suggested anything on his own behalf; he should look that up himself; it was not up to me.

Q. Now, with respect to the specifications that were given to you for the performance of this work, did you ever see any more than one set of specifications?

A. That is all I know anything about one set of specifications.

Q. I show you now Respondent's Exhibit Christy "C" and ask you whether or not that is the set of specifications that was given to you.

A. Here is the office mark on the thing; that is the only specification that I know anything about.

Q. That is the only specification you ever saw?

A. That I know anything about or that I ever saw.

(Testimony of Harry Paul Gray.)

These things go to the office, then they go to me.

Q. Now, how did you know, Mr. Gray, about the time to go down and inspect the vessel, or the time for the opening of the bids? [2024—1936]

A. Well, I was doing the work on the ship. I knew more about it than anybody else outside of the engineer; the chances are that I did; I always looked out for that ship, was aboard whenever she came in here.

Q. How about being advised about the opening of the bids?

A. The engineer told me when the bids would be opened.

Q. Do you remember the occasion Mr. Gray, when the agreement was made for the repair of the smoke-stack? A. Yes.

Q. Where was that agreement entered into?

A. Over at the yard.

Q. Well, where?

A. In the office of the United Engineering Works; Williamson's office.

Q. In Williamson's office? A. Yes.

Q. Now, what was included in that agreement for the smokestack?

A. Just the shell of the stack which was wasted away; it did not even include the bands; we used the old bands and eyes and everything of that kind.

Q. How about the umbrella? A. No umbrella.

Q. When you say "no umbrella," what do you mean?

A. The umbrella is not a part of the stack.

(Testimony of Harry Paul Gray.)

Q. Was not included in that agreement?

A. No, it was not.

Q. At the time that the smokestack agreement was entered into—

A. (Intg.) I did not know there was anything wrong with the umbrella at that time.

Q. You did not know that there was anything wrong with the umbrella? A. No.

Q. How about the guys?

Mr. McCLANAHAN.—I object to the question as leading. Have the witness state the conversation; get at it in that way. You would insist upon that if he was my witness. [2025—1937]

Mr. FRANK.—The nature of the contract has been proved well enough; but you folks are making the contention that other things were included in it, and I have a right to call his attention to things you contend were included in it. That is what I am doing.

Mr. McCLANAHAN.—It would save time if you asked for the conversation.

Mr. FRANK.—I do not think so.

A. What was the question?

(Last question repeated by the Reporter.)

A. No guys included in the original contract, not with me.

Q. Now, here in Schedule No. 9 of the libel is an item, "enlarge casings"; was that included in the original smokestack agreement?

A. No, not with the arrangement I made; I had nothing to do with that.

(Testimony of Harry Paul Gray.)

Q. What was the reason the casing was enlarged, do you know?

A. Well, I believe they claimed that was the reason that the stack wasted so, because there was not sufficient area around there to let the heat out; I had nothing to do with that casing.

Q. Well, it was not included in your original agreement at all?

A. No. It was very narrow; you could not get at it; you could not get at the stack to paint it properly.

Q. Was the top for the breeching?

A. The breeching is not a part of the stack; it is a part of the breeching.

Q. How about the turn-buckle hangers?

A. No, not any part of the stack.

Q. Now, do you remember the contract that was made for the repair of the tank-top? A. Yes.

Mr. McCLANAHAN.—I object to that upon the ground that the evidence in the case shows that there was not any contract for the repair of the tank-top.
[2026—1938]

Mr. FRANK.—There certainly was a contract. Whether it was in a contract for a fixed sum or on time and material, it is a contract, isn't it?

Mr. McCLANAHAN.—I accept that explanation.

Mr. FRANK.—Q. Now, I show you a letter, Mr. Gray, being "Respondent Matson's Exhibit No. 1," and ask you to read it.

A. Do you want me to read this all through?

Q. To yourself, so that you will know what it is about. A. That is a good letter.

(Testimony of Harry Paul Gray.)

Q. Do you remember that?

A. Yes, I remember it.

Q. Now, was that accepted or rejected?

A. Captain Matson rejected it; he would not have it.

Q. He would not have it? A. No.

Q. Afterwards what, if anything, occurred with respect to an agreement to repair the tank-top?

A. I do not think I understand your question exactly.

Q. Well, he rejected this bid, did he not?

A. Yes.

Q. What was substituted for it?

A. Well, he wanted it done by time and material.

Q. By time and material? A. Yes.

Q. Was there any agreement or guarantee on your part that the work when done under time and material should not exceed the amount of that bid?

A. Oh, I made no such guarantee as that thing. I do not think the question was asked me.

Q. Do you remember whether or not he made a request for you to keep separate time upon that work?

A. He did not make any request to me; he would not make the request of me; he would make it to his own people. That is their business.

Q. Well, so far as you are concerned, he did not make any such request to you? A. No. [2027—1939]

Q. Now, do you know whether or not the work that was actually done on the tank-top exceeded the amount mentioned in that bid?

(Testimony of Harry Paul Gray.)

A. Well, the bid here speaks of where the tank is bulged, you see, and after we had fixed this bulged part and closed the tank up and tested it, we found it had further leaks next to the shaft-alley bulkhead, that plate back there, and we had to remove that plate after this work that is mentioned here was done.

Q. After it had been completed? A. Yes.

Q. That is, you had to tear out or drive out the rivets on the plate which had already been made fast and put in a new plate? A. Yes.

Mr. McCLANAHAN.—I object to the question as leading and suggestive. I think the witness could tell what was done.

Mr. FRANK.—Q. What did you do?

A. I think I told you that; that plate right adjacent to the shaft-alley bulkhead, the aftermost plate in that hold; I think that covers the ground.

Q. I show you "Respondent Kinsman's Exhibit No. 1," which purports to be the sketch of the part of that after tank that was repaired, and he has testified that the part that was repaired is the open space marked "F," and that the cross-section portion was not touched; is that true?

A. The part marked "F"?

Q. Is that a true sketch of the work that was done at that time?

A. The cross-section portion was not touched?

Q. Yes.

A. This was out, this after-plate was out; I am positive; and of course the sketch is not to scale.

Q. But when you say the after-plate was out, you

(Testimony of Harry Paul Gray.)

mean the cross-section part at the end marked

“A-B.” A. Yes—is that “A-B” or “4-B”?

Q. That is “A-B.”

A. Yes, this plate here (pointing). [2028—1940]

Q. Just take a pencil and mark the plate that you are speaking about.

A. This is the plate that I am speaking about (pointing).

Q. Mark the plate on that sketch “Kinsman Exhibit No. 1”—call it “G.”

A. Do you want me to put “G” on here?

Q. Yes, mark the plate that you refer to “G.”

A. Yes.

Q. What were you going to say about the plate?

A. That is, the plate that was removed after the work called for in that letter was done, and after we had tested the tank and it specifically states in that letter any extra work—that letter is all right—I have not seen that for a long time—it specifically states that any extra work that shows would not be a part of that price.

Q. The letter was rejected,—the price was rejected.

A. Yes, but I say it was all written.

Q. It might have been very well written; we will frame it after awhile. But for the present purposes it was rejected? A. Yes.

Q. Now, with respect to the other plate at the other end of that bulkhead: was the entire plate in the condition indicated in this “Kinsman Exhibit No. 1”?

A. No, it was cut off pretty close to the bulkhead here, and all these plates in this were finally renewed

(Testimony of Harry Paul Gray.)

with the exception of one, 1½, on this whole tank-top. Of course that sketch is not to scale; it really does not amount to anything, so far as showing the actual amount of work done. The margin was not touched at all except to fasten to.

Q. Now, you remember part of the specifications, and I am referring now to "Respondent's Exhibit Christy 'C,' No. 7," "Suitably finish wrought-iron column with flange fitted, will be properly secured to under side of H. P. Cylinder," etc.—that was not done, was it? A. No. [2029—1941]

Q. Instead of that there was a bronze patch put on the housing? A. A manganese bronze patch.

Q. Now, did you ever agree with anyone that that manganese bronze patch should be given to them as compensation for No. 7 without a balancing of debits and credits with respect to the same? In other words, that the bronze patch would be substituted for No. 7 without any change in price.

A. No, I made no such agreement; I did not; I could not do it.

Q. Why do you say you could not do it?

A. Because it is worth about three times as much as the column; the thing is absurd, to make such a proposition.

Q. Do you remember any conversation respecting that?

A. Well, I remember that I did not agree to it. Klitgaard was trying to get me to offset one with the other, but I told him the thing could not be done, it was impossible; it was about three times as much cost

(Testimony of Harry Paul Gray.)

to one as there was to the column; I told him at that time the column was the best anyway, and I still think it was the best job.

Q. Referring now to No. 2 of the specifications, to "remove the low pressure valve and face," etc., you remember that was not done?

A. That was not done.

Q. Now, a balance-cylinder was placed upon that valve, and Mr. Klitgaard, at page 1578, testifies that it was to be a recompense for No. 2, and says Mr. Williamson said that was all right. "Later I told Mr. Gray about it and he told me that any alterations or things of that nature that in future turned up, as long as Mr. Williamson was satisfied, he would be satisfied; that any agreement I came to with Mr. Williamson, as far as recompense matters were concerned, was all right." Did you have any such conversation with Mr. Klitgaard? [2030—1942]

A. No; no such conversation.

Q. Did you have any such conversation whatsoever with him wherein you agreed that that balance-cylinder should be a recompense for No. 2 of the specifications? A. No. He tried to get me to.

Q. He tried to get you to? A. Yes.

Q. Do you remember what passed between you in that respect?

A. What do you mean, the whole of the conversation?

Q. Well, as near as you can, or the substance of it.

A. Well, that was one job amongst many others that he tried to get me to offset one with the other,

(Testimony of Harry Paul Gray.)

and I refused to do it. That is all the conversation amounted to.

Q. Did you ever tell him that any agreement that Mr. Williamson should make respecting recompense work was all right? A. I did not.

Q. Now, with reference to Specification No. 4, "Make tight H. P. and L. P. Guides for water circulation," etc. Do you remember that?

A. Yes, I remember that.

Q. That was not done as specified? A. No.

Q. There was a change made in it, in those guides?

A. Yes.

Q. Now, Mr. Klitgaard says that you were subsequently told about this: "Who by? A. By myself.

Q. What was the conversation with Mr. Gray with reference to it? A. He said, 'Oh, that is all right.'

Q. Was there any figuring done at that time as to the cost of the change? A. Yes, sir. Q. Who did the figuring? A. Mr. Williamson and myself."

Q. Did any such conversation pass between you and Mr. Klitgaard? A. Read that again. [2031—1943]

Q. I will read more of this.

A. What does it say was to be done?

Q. Read the specifications first and then I will read the testimony to you.

A. That includes the construction of the high pressure and intermediate shoes.

Q. He says: "Instead of putting in these extra screw-stays which it calls for here, heavier plates were put on the back of the guides. Instead of re-

(Testimony of Harry Paul Gray.)

constructing the H. P. and L. P. shoes, as the specification calls for, there were new castings made.

Q. By 'castings' you mean new shoes, do you not?

A. New shoes were made and cast in the machine and rebabbitted. The agreement was between Mr. Williamson and myself that we would pay for the babbitting of the shoes; in other respects, the changes that had been made in this item were in recompense for what was not done under the item."

Now, he says, after some further examination:

"Mr. Gray was subsequently told about it.

Q. Who by? A. By myself.

Q. What was the conversation with Mr. Gray with reference to it?

A. He said, 'Oh, that is all right.'

Q. Was there any figuring done at that time as to the cost of the change? A. Yes."

A. I must have been an easy mark then, if I made any such remark as that.

Q. That is not an answer to my question.

A. No, I made no such arrangement with him at all; the man is drawing on his imagination.

Q. Now, No. 5; just read No. 5 of the specifications.

A. Yes, sir. [2032—1944]

Q. Mr. Klitgaard says that:

"Q. The H. P. and L. P. Eccentric straps, they were not remetalled or refitted. No work at all was done to the H. P. Eccentric straps. In recompense for doing this work the H. P. and L. P. Eccentric straps were taken up to the shop and two brass liners were cast and fitted on to them. These liners were

(Testimony of Harry Paul Gray.)

pocketed and filled with Challenge metal.”

A. That was the low pressure; it was done. He did not do it on the high pressure.

Q. “In recompense for doing this work the H. P. and L. P. Eccentric straps were taken up to the shop and two brass liners were cast and fitted on to them. These liners were pocketed and filled with Challenge metal. Then the whole was taken down to the shop and fitted to the sheaves.”

Do you remember that piece of work? A. Yes.

Q. He says further on: “Mr. Gray came around after the work had been started. I explained the matter to him. He kicked so much about this—he said he was getting the worst end of it—that finally I agreed to allow them for the Challenge metal that was put in there, too.

Q. Who did you agree with?

A. With Gray. I told him I would give him the Challenge metal too.

Q. What did he say?

A. ‘All right’; he said, ‘let it go at that.’ ”

A. No such arrangement at all.

Q. You say you remember that?

A. I remember what was done, yes.

Q. What does he mean when he says you got hot in the collar about it?

A. Another one of his propositions to poke something down my throat. [2033—1945]

Q. Did you have a heated discussion with him about it?

A. I had several heated discussions with him; not

(Testimony of Harry Paul Gray.)

only that, but other things.

Q. Well, do I understand you to say that you did or did not agree that should be recompense?

A. I did not agree to any such arrangement.

Q. Now, I call your attention to the testimony of Mr. Klitgaard concerning the substitution of the bronze patch for the iron column, No. 7.

Mr. McCLANAHAN.—You have already touched on that.

Mr. FRANK.—I know, but I have not got the conversation.

Q. “Please give the details of the understanding with reference to No. 7.

A. Why, there was a good deal of discussion about that. Mr. Gray suggested the patch.”

Q. Did you suggest the patch?

A. I did not suggest the patch. I opposed it from the start, had nothing to do with it.

Q. “Instead of what?

A. Instead of putting up the column, because the column would be so much in the road, and would not be a very easy thing to fit on; so he suggested putting a bronze patch on, fitting a bronze patch to the housing to take in the condenser.

Q. Give us the details of the discussion which followed his suggestion.

A. We all went down in the engine-room and looked the situation over, and finally decided that his suggestion was a very good one. I asked Mr. Gray if he was willing to put in this patch as a recompense for the iron column, or

(Testimony of Harry Paul Gray.)

if one would balance the other; he said yes, provided that the weight of metal in this bronze patch did not amount to too much. We agreed that if it did not weigh over 900 pounds, [2034—1946] it would be a fair recompense, and anything over 900 pounds we would pay for the extra bronze.

Q. Do you know if the patch did weigh over 900 pounds? A. No, sir, it did not."

A. That is a pretty good figure.

Q. Now, what I am asking you about is—I suppose hind sight is always better than fore sight with these people, but what I am asking you about is whether any such conversation as that ever took place. A. No, sir.

Q. I understand you say you never suggested the patch and were not in favor of it?

A. I never was in favor of the suggestion of the patch. That suggestion of the patch came from a man named Putzar.

Q. And you never made any agreement that it should be a recompense for—

A. (Intg.) I did not.

Q. (Continuing.) —either as an allowance for bronze or otherwise?

A. In no way was it made a recompense one for the other.

(An adjournment was taken until to-morrow, Thursday, May 2d, 1912, at 10 A. M.) [2035—1947]

(Testimony of Harry Paul Gray.)

Thursday, May 2, 1912.

HARRY PAUL GRAY, direct examination resumed:

Mr. FRANK.—Q. Mr. Gray, do you remember the contract made between you and the Matson Navigation Company for restaying the donkey-boilers?

A. There was such a contract made, yes.

Q. The price was \$1,350. Do you remember that?

A. I could not state positively as to the price; it must be in the records.

Q. Well, that is the price, there is no question about that. Did you have any conversation with Mr. Klitgaard previous to the making of that contract in which you gave him that figure?

A. That figure of \$1,350?

Q. Yes, before the figure was asked by us.

A. I have no recollection of any such arrangement. That is three or four years ago, you know, and whether I gave him a verbal figure before I sent the figure into Matson, or not, I could not tell you.

Q. Do you remember what the Union's estimate on this pump was as compared with the others?

A. You are speaking of the stay boiler?

Q. Yes. I made a mistake about that. It is of the installation of the circulating pump. I made a mistake on that. Did you give Mr. Klitgaard that figure before the contract was let?

A. I talked that over with him and told him about what it would cost.

Q. About what it would cost? A. Yes.

Q. Before you made any bid?

(Testimony of Harry Paul Gray.)

A. Before I sent the figure in to Matson, yes. That is a common thing, for the engineer to ask you for a price and ask you to send a figure in.
[2036—1948]

Q. It is immaterial whether or not it is a common thing. I want to know whether you gave him that figure before the matter was taken up with Matson?

A. Yes.

Q. Do you remember what the Union Iron Works' estimate was on that pump as compared with yours?

A. Well, it was about double.

Mr. McCLANAHAN.—I object to that as immaterial and not rebuttal in any sense.

A. It was approximately double.

Q. Do you remember, Mr. Gray, whether or not there was anything the matter with the housings of the crank-shaft, the brasses—the brasses of the crank-shaft, was there anything the matter with them? A. Of the main engine?

Q. Yes.

A. They were all split and torn. There was a good many of them split in two, and they were all worn in the housings; that is, the brasses themselves were smaller than the housings.

Q. What effect, if any, did that have upon the housing of the crank-shaft?

A. Well, that is what allowed the crank-shaft to work athwartships.

Q. Work athwartships? A. Yes.

Q. What was the condition of the shaft itself?

(Testimony of Harry Paul Gray.)

What did you find to be the condition of the shaft itself after you had taken it out of the housings?

A. Well, we found the shaft to be straight; it was not sprung.

Q. But was anything the matter with it?

A. Well, the bearings were abraded.

Q. You are speaking of the shaft?

A. Speaking of the main shaft housings, abraded; cut would be the best term. [2037—1949]

Q. That is the shaft itself?

A. Yes, they were more or less out of round.

Q. Out of round? A. Yes.

Q. Did that necessitate any work upon the shaft?

A. Well, it necessitated filling it; at least it was ordered to be filled until the marks were taken out of it, and the shaft was rounded up. I do not suppose there is any need of going into the detail of how it was done.

Q. How was it done, whether by hand or otherwise?

A. It was done by hand and by means of a shell; it is made round by a shell, and oilstoned at the last; that is the final finish.

Q. If the shaft had been taken out and put in a lathe would that work have been done by hand?

A. No, it would have been done in the lathe.

Q. Which is the more expensive mode of doing the work, in the lathe or by hand?

A. When you once get the shaft in the lathe, there is no question but what that is by far the cheapest plan, to do it in the lathe.

(Testimony of Harry Paul Gray.)

Q. And the reducing of it—the rounding and reducing of these abrasions by hand on board the ship was much more expensive?

A. It is a tedious process.

Q. Wait until I finish my question. It is more expensive than the same work would have been if put in a lathe. Is that right? A. Yes, sir.

Q. I think Mr. Kinsman said that the shaft, that he never heard of a crank-shaft being trued up in the lathe. What, if anything, have you to say regarding that? A. What have I to say?

Q. Yes, regarding such a statement.

A. Well, I would say that Mr. Kinsman had not given it any thought before he made the remark, because it is a very silly remark, for the reason that [2038—1950] all crank-shafts are made in a lathe, and you cannot get it absolutely accurate unless they are put between the centers—absolutely, I am speaking.

Q. Returning now to the change in specification No. 4, “make tight high pressure and low pressure guides for water circulation,” etc. Mr. Klitgaard testified that heavier plates were put on the back of the guides, and that instead of reconstructing the high pressure and low pressure shoes, as the specifications called for, there were new castings made. What, if anything, can you say with respect to the cost of the work of installing new plates as compared with the work originally contemplated?

A. Well, you had to put the piston-rod in the planer and plane off a quarter of an inch to permit

(Testimony of Harry Paul Gray.)

of a quarter of an inch more babbitt being added to the shoe. That is one item that would make it more costly than originally contemplated.

Q. What would be the comparative cost of the new plate when the new babbitt was put on as compared with the original specification? I do not care for the figures.

A. Do you want me to approximate the thing?

Q. Yes.

A. I should say it was about double the work all through.

Q. Mr. Klitgaard has suggested that it would take about 72 or 74 pounds, that is about 36 or 37 pounds to each shoe of babbitt. What, if any, comment, do you make upon that?

Mr. McCLANAHAN.—I object to that question on the ground that it is not properly stating the testimony. Mr. Klitgaard said that was the agreement, that 36 or 37 pounds for each shoe was to be allowed for an extra—

Mr. FRANK.—No he did not. [2039—1951]

Mr. McCLANAHAN.—Q. Read what he says. That is the way to put it correctly.

Mr. FRANK.—I put it correctly, Mr. McClanahan, just exactly what he said. I have paraphrased it. If I were to read all of this I would have a very large record.

Mr. McCLANAHAN.—You were doing it yesterday, and doing it properly.

Mr. FRANK.—If you think I am examining him wrongly, you follow me and you just check me up in

(Testimony of Harry Paul Gray.)

the matter. I have given a correct statement of the statement of the witness, and I will also give the page for it, which is 1580.

Mr. McCLANAHAN.—I have made my objection.

Mr. FRANK.—Read the question.

(The last question repeated by the reporter.)

A. The amount of babbitt could be readily determined because I have a drawing of it at the shop, and you could figure out the amount of babbitt in it. Anyone could do that.

Q. Do you remember the size of the shoe, Mr. Gray? A. No, I could not tell you that off hand.

Q. Well, assuming it was 18 and $\frac{3}{16}$ ths inches by 20 inches? A. What is it you want?

Q. Do you want a piece of paper?

A. What is it you want done?

Q. The amount of babbitt? A. 18, is it, by 20?

Q. 18 and $\frac{3}{16}$ ths by 20?

A. Never mind the $\frac{3}{16}$ ths; you could not figure as close as that, anyway. Is there any indication there of the amount of thickness that was used? The thickness varies all the way from a quarter to three-quarters, you know, sometimes.

Q. That is not sufficient data for it?

A. I have got to have the thickness there; I should judge that that thickness [2040—1952] would run about $\frac{5}{8}$ ths.

Q. Well, have you any recollection about that particular piece of work, about the thickness?

A. Well, it varies, you know.

Q. I am asking you if you have any recollection.

(Testimony of Harry Paul Gray.)

A. My judgment is that it would be about $\frac{5}{8}$ ths.

Q. Well, is that judgment formed from your knowledge of the work?

A. Well, that would be about right.

Q. Well, go on then and figure it.

A. (After figuring.) It shows about 90 pounds to the shoe.

Q. Is there any allowance made there for babbitt-ing the pockets of the shoe?

A. I am speaking of the average thickness, the average thickness.

Q. Including the pocket?

A. Some of it is pocketed, and some is thinner. That is estimating that the thickness, the finished thickness, is $\frac{5}{8}$ ths.

Q. He afterwards corrected the statement on page 1582 and said that the new shoes would be 46 pounds each?

A. That they would be about 46 pounds each.

Q. Yes, the new shoes should be 46 pounds?

A. You could not make up that shoe with 46 pounds of metal, it is impossible. This is allowing for finished size $\frac{5}{8}$ ths; there would be $\frac{1}{8}$ th more in the rough size, and they are charged for the rough always. In finishing you take off an eighth of an inch and they pay for it always.

Q. They pay for the metal?

A. They pay for the metal that you have taken off. The babbitt is weighed as it goes on to the casting. It is impossible to make a shoe like that in 46 pounds of metal. You could never get the babbitt to hold;

(Testimony of Harry Paul Gray.)

it would be so thin it would all go in cracks. [2041—1953]

Q. Speaking of the iron guards, the charge, made and fitted two sets of iron guards, Mr. Klitgaard says the iron guards were merely repaired and refitted. Is that the fact?

A. Where were those guards, in front of the crank-pit?

Q. I will tell you. Made and fitted two sets of iron guards for H. P. and L. P. crank-pit?

A. Those were practically new. I think they used the bounding iron on the outside of them.

Q. Practically new guards?

A. Yes; they would use the iron on the outside, if it was in good condition, which it generally is.

Q. Speaking of Item 70 in Kinsman Exhibit No. 2, turned down thrust-shaft coupling and faced off, Mr. Klitgaard says that thrust-shaft coupling was not turned down—that is on page 1595. What have you got to say to that?

A. It was turned down, a light cut taken off of it to true it up.

Q. True it up?

A. Yes. There was a good reason for that.

Q. What is that?

A. The reason is that the shaft was not spigotted, and the only means you have of bringing these shafts parallel, when you come to ream your hole it is by the outside of the coupling; had there been a spigot that would have been unnecessary.

Q. As a matter of fact, then, it was turned down?

(Testimony of Harry Paul Gray.)

A. It was turned down.

Q. 74 under the same exhibit, portion of shaft lower bulkhead cut out, removed one length of intermediate shaft to shop, forward coupling faced and turned down and bearing trued up. Mr. Klitgaard says in substance that was not turned down but faced off?

A. It was turned down to meet the corresponding [2042—1954] flange on the thrust-shaft so that the man could line them up for his reaming, to get rid of the reaming, to ream the holes out. What else do they have to work to on a shaft of that description?

Q. Speaking of No. 78 of the same exhibit, water surface for thrust-shaft reconstructed—water for thrust reconstructed—he says, I do not think that the water surface was reconstructed for the thrust?

A. It had to be reconstructed because the thrust was new. The thrust collars were practically new, horseshoes. Furthermore, it was made of brass. My recollection of the old one is it was galvanized iron.

Q. Calling your attention to No. 91 of the same, made and fitted new binder bolts and nuts to foot of valve stem, he says the bolts that were originally there were all right, the bolts that are in there now have got English threads on them; if they were new bolts they would have to be American standard thread? A. That is not reasonable.

Q. Just one moment. Let me read all this: "Were the bolts originally English or American standard thread? A. They were English origin-

(Testimony of Harry Paul Gray.)

ally, and they are yet. Q. Do you know what kind of threads the United Engineering Works makes for their bolts? A. Yes, sir; standard American threads."

A. We don't make that alone. We make any kind of threads, Whitworth or American standard, to suit the work.

Q. What do you mean by Whitworth?

A. The English standard.

Q. You make repairs on English ships as well as American ships?

A. Right along, all the time. I will tell you the reason for those bolts being made Whitworth. The nuts [2043—1955] were probably good, and the nuts are quite an item; they are pocketed nuts; instead of throwing the nuts away and making new nuts and new bolts they saved the nuts and put a Whitworth thread on the new bolts.

Q. And you have the means, and are in the habit of putting on English threads as well as American thread? A. Right along.

Q. Calling your attention to Item 103, "made and fitted eccentric strap and sheave for turning engine and renewed all bolts, nuts and washers for same." Mr. Klitgaard says, "that turning engine was all right when we went over there, and it was used exclusively by the United Engineering Works in overhauling the vessel; it was broken by them; I think it was broken by Nelson; this work necessitated the repairing of work that they broke." What, if anything, have you to say about that?

(Testimony of Harry Paul Gray.)

A. Well, there was a good deal of damage done to the turning engine before it went over there. The possibilities are we might have done some too, but it was in pretty bad condition, because I talked it over with him. My recollection is that the eccentric sheave was broken, reversed by the sheave revolving around the shaft, and my recollection is that there was trouble in there.

Q. That is, before you used it?

A. Before we used it, when they were running on the regular run.

Q. You say you talked it over with him?

A. Yes.

Q. Did he give you any direction what you should do with it? A. When?

Mr. McCLANAHAN.—I object to that question as leading. I would like to have the conversation.

A. Well, the conversation related to that eccentric sheave and strap. [2044—1956]

Mr. FRANK.—Q. What was it?

A. Well, that sheave was revolved around the shaft, and they had to stop the engine and reverse it, and it was jammed so you could not turn it, and I am pretty positive it was broken at that time. In fact, I should say that that sheave was broken.

Q. Well, what, if anything, did he have to say with respect to repairing it?

A. Well, the understanding was that it was to be repaired before she left there. Of course, that was left to the last minute; we finished up the use of the

(Testimony of Harry Paul Gray.)

engine, the turning engine, and then overhauled it for them.

Mr. McCLANAHAN.—Q. Can't you give the conversation?

Mr. FRANK.—Wait a minute. I am examining the witness.

Mr. McCLANAHAN.—You have interrupted me a number of times during the examination of my witnesses.

Mr. FRANK.—I am examining this witness at this time, and I want to be permitted to examine him in my own way, and if there is any of these questions that you desire to follow up you can follow them up by cross-examining him. You have done that with me every time.

Mr. McCLANAHAN.—I simply wanted to inform you that you have interrupted my examination as often as I have interrupted yours.

Mr. FRANK.—Q. Let us get back to the question.

The WITNESS.—You could hear the engine pound all over the engine-room when it went over there. I have a definite recollection of that.

Mr. McCLANAHAN.—Q. Is that a part of the conversation?

A. It was not a part of the conversation, no. The engine has a method of talking of its own.

Mr. FRANK.—Q. You say the understanding was that it [2045—1957] was to be repaired?

A. Yes.

Q. How did that understanding arise?

A. Merely by word of mouth.

(Testimony of Harry Paul Gray.)

Q. Between whom? A. Klitgaard and myself.

Q. That is what I want to get at. What do you mean by word of mouth between Klitgaard and yourself. Put it in definite terms?

A. The understanding was this, that we were to use the engine.

Q. I do not care anything about the understanding.

A. Let me explain, and maybe I can get it so that you can understand it. We were to use the engine until the job of overhauling the main engine was finished, use the turning engine, and when the ship was ready to leave the yards, we were to overhaul the turning engine, put it in condition.

Q. How did that understanding arise. You say it was an understanding. You said it was arrived at verbally between you and Klitgaard? A. Yes.

Q. By that he told you to do it? A. Yes.

Q. That is right? A. He told me to do it.

Q. Referring to Item 108: "Globe valve to drain on main steam line, made and fitted new brass water service to guides with galvanized drains and reconnected all water service lines in engine-room and shaft alley." Mr. Klitgaard said that this comes under assembling the brass pipe and water service should be allowed as an extra. "Q. Should there be an allowance for the full value of the brass pipe?

A. No, sir; just the difference between the price of the brass pipe and the price of the iron pipe." What, if any, comment have you to make upon that?

A. That was absurd. What good would the old

(Testimony of Harry Paul Gray.)

iron pipe be to me, if I had to cut [2046—1958] up new brass pipe to make it into lengths to suit what was removed. What could I do with the old galvanized pipe that came out of there. And furthermore, if there was brass pipe put in, there was brass fittings put in, and the fittings were all renewed. Old iron pipe has a value of about \$3 to \$4 a ton.

Q. Referring to Item 120: "Made and fitted straps for hanging spare horseshoe and two adjusting nut wrenches." He says that that item belongs to a previous contract for the thrust. He says that the reconstruction of the thrust, that was made a year or a year and a half previous to this:

"Q. Made by whom?

A. Made by Gray with Captain Matson.

Q. Do you refer to a contract which you have not mentioned in your testimony heretofore? A. Yes, sir; this was a contract that was completed outside of this, and a trolley line that was to go overhead." What, if anything, have you to say about the trolley line mentionéd there?

A. I made no arrangements for any trolley for that thrust. The thrust was rebuilt a couple of times, but I did not promise him any trolley; I don't know anything about that.

Q. Now, there was a trolley worked on in this work, a trolley in the shop was worked on in the shop in this work that was done at the time we are now referring to. Do you know what that trolley was?

A. It must have been—

Mr. McCLANAHAN.—I object to that as leading.

(Testimony of Harry Paul Gray.)

Mr. FRANK.—How is it leading?

A. That is the only trolley I know anything about that was worked upon, the trolley over the thrust; there might have been something done to the other one, I don't remember.

Q. You don't remember?

A. Not the main trolley over the [2047—1959] engine.

Q. You don't remember what was done up there?

A. No.

Q. Is there anything in any contract that you previously made with Matson for hanging spare horse-shoe? A. No.

Q. And adjusting nut wrenches? A. No.

Q. Mr. Gray, why was the intermediate shaft taken to the shop?

A. You mean the section abaft the thrust, the intermediate section?

Q. Yes.

A. It was taken there primarily because the faces of the couplings were so bad it was hard to make a good job, and the engineers decided they would take it up to the shop and face it, and while it was there it was turned down on the inside and a spring on that bearing was spotted too.

Q. So far as the alignment was concerned, was it necessary to take the shaft to the shop?

A. Simply having the shaft up there it was aligned.

Q. Just a minute. I say was it necessary to take it up for the purpose of alignment? A. No.

Q. And it was taken up for what purpose, you

(Testimony of Harry Paul Gray.)

say? A. To face off the couplings.

Mr. McCLANAHAN.—He said principally for that purpose.

Mr. FRANK.—Q. Was there any other purpose?

A. That was the primary purpose of its going, and while it was there, one of the couplings was turned down, and the spring, where the spring bearing took that shaft, that was spotted, turned up. All of the rest of the shaft we filed up.

Q. If it had not been for the facing off of the couplings would it have been taken out? A. No.

Q. With whom did you discuss the matter of taking that out [2048—1960] before taking it out?

A. With whom did I discuss it?

Q. Yes.

A. I do not think I had much to say about it. I was probably told they were going to take it out.

Q. Well, was that a considerable undertaking?

A. On account of cutting the shaft-alley bulkhead, it was, yes, cutting out that alcove.

Q. You had to cut the bulkhead to get it out?

A. Yes.

Q. Did you have any conversation with Mr. Klitgaard regarding the estimate which he has testified to that he made of the value of this work?

A. What is his testimony?

Q. He has testified that he told you that he was making an estimate on the value of this work.

A. That is about a year ago in August is my recollection of it; he came down to the shop and told me he was estimating it.

(Testimony of Harry Paul Gray.)

Q. He did? A. Yes.

Q. At that time did he tell you anything about whether or not he took into consideration in his estimate the matter of overtime?

A. He mentioned incidentally that he had not considered any overtime when he sprung this price on me.

Q. He had not considered any overtime?

A. No.

Q. What do you mean when you say sprung this price on you?

A. Well, when he told me what he thought it was worth.

Q. What he had estimated it? A. Yes.

Q. Did he tell you how much he estimated it at that time, what his estimate was?

A. As far as my recollection goes it was about \$22,000 or \$23,000.

Q. He told you at that time?

A. Yes, at that time.

Q. Now, from your knowledge of the work and what went on there what would you say would be about the estimate, or a fair estimate, for the value of the overtime on that work? [2049—1961]

A. It would be a very difficult thing to estimate. If you want me to guess at it, I should say it was worth about \$10,000.

Q. I suppose that is what some of these witnesses would call an educated guess. Is that a result of your experience, your knowledge of the circumstances?

(Testimony of Harry Paul Gray.)

A. Well, I don't know whether you would call it an educated guess or not. I am about as good a guesser as any one of them. I get my share of the business.

Q. Would you consider you are as good a guesser as Mr. Heynemann and Gardner who had no connection with the work?

A. These personal comparisons always make some kind of trouble. I don't know—I could say for Mr. Heynemann, that he has not been at the business for a long time, and I think I would probably know more about it than he would.

Q. Well, at any rate you were on the job and they were not? A. Yes.

Q. Is that right? A. Yes.

Q. You knew what was going on and they do not. Is that right?

A. They certainly could not have known what was going on, because they were not there.

Q. Did you take any means of ascertaining how much the crank-shaft worked athwartships?

A. Only with my eye. I did not put any instrument on it at all.

Q. Now, previous to the time when Mr. Klitgaard told you about his figuring upon this contract, in making and figuring an estimate and valuing it at about \$23,000, and while the work was in progress, did you have anything to say to him about your fear of what the work was going to cost?

A. Yes, I did, not only to him, but to Putzar, and Saunders, all three of them together. [2050—1962]

(Testimony of Harry Paul Gray.)

Q. How long was that before the work was finished?

A. Why, I should say it was about a week and a half or two weeks, that is my recollection of it.

Q. What passed between you. He said that you thought the job would go \$20,000?

A. Well, \$20,000 up to that time. I told him that they were getting themselves in a hole, that they were not going to get out very easily. Matson was out of town at that time, and they had better stop finding any more work on the ship. That is the gist of the talk.

Q. Well, when you say the gist of your talk, were you protesting against their—

A. (Intg.) I told them that they had better stop finding any more work, that they would get into serious trouble with the owner of the ship.

Q. Why. Did you tell them why?

A. I told them why, yes.

Q. What did you tell them?

A. Well, I had one big row with the Matson Navigation Company over a ship, and this looked very much like another one coming.

Mr. McCLANAHAN.—I object to that as not responsive to the question, and ask that it be stricken out, unless that is what he told them.

A. No, I did not tell them that.

Mr. FRANK.—Strike it out.

Q. I want what you told them?

A. Well, I have told you what I told them. I said, "You are going to get yourselves into serious trouble

(Testimony of Harry Paul Gray.)

if you find any more work on this ship, and me as well."

Q. Did you tell that to Klitgaard?

A. Both Klitgaard and Putzar and Saunders were present when I made that statement.

Q. Mr. Saunders has testified that he was present on a conversation [2051—1963] between you and Captain Matson when Captain Matson told you that the bid was too high, and he says that the captain had told Mr. Gray that the bids were too high, and that he was going to call for more bids. Mr. Gray said that the necessity about the crank-shaft having to come out was his explanation of the bid being as much as it was. Did you ever make any such statement as that?

A. I don't think any bearing was put on the crank-shaft any more than the rest of the job.

Q. Did you ever make any such statement as that?

A. No. The job as a whole was considered too high. He did make that statement two or three times to me.

Q. That is, that the job was too high?

A. Cost too much money.

Q. Did you ever say to him it was the uncertainty about the crank-shaft having to come out?

A. No, I did not.

Q. When you say the job, you mean the bid?

A. The bid?

Q. Yes.

A. He claimed that the bid was too much for the amount of work that was going to be done.

(Testimony of Harry Paul Gray.)

Q. That is the occasion that you are speaking of now? A. Yes.

Q. Mr. Gray, do you know whether or not any part of the reversing shaft was taken to the shop to work on? Mr. Klitgaard was asked, "Do you know whether or not the 'Hilonian' reverse shaft was ever in the shop of the United Engineering Works"?

A. Well, it was not, never was in the shop.

Q. He says it was not. Was any part of it in the shop? A. They made a clamp for it.

Q. Made a clamp for it in the shop?

A. Made the clamp in the shop. That clamp had an extension handle to come down in front of the working platform to jam the gear into any position they wanted to hold it in. [2052—1964]

Q. Now, Mr. Klitgaard is asked this question: "On an exhibit in this case called Adamson Exhibit 7, under date of September 21st, and under No. 5398, there is a charge for 'extension and brass tags for main and bilge injections.' Can you state what that work belongs to, referring to the specifications and the contracts which you have mentioned?

A. Why, that belongs to the circulating-pump contract."

A. Well, it was essentially a part of that job, but there is nothing in the specifications in the circulating-pump specifications, that calls for an extension of the valve stem of the main sea valve, and that is what that is.

Q. How about the brass tags?

A. If the specifications called for brass tags, why,

(Testimony of Harry Paul Gray.)

I suppose they are a part of the contract.

Q. Do you know whether the old wheels on the main and bilge injections ever had any brass tags on them?

A. I could not answer as to that positively, no. It is a very small item anyway.

Q. I know, but it seems there is nothing too small for them to question in this matter. A. No.

Q. How about the universal and knuckle joints?

A. Well, that was to get the lead of the stem right, you see, bring it up square. The valve sits on an angle, and to bring the lead of the stem fair we had to put in a universal or angle-joint.

Q. Was that any part of the original contract?

A. No, because there was no mention of any such arrangement in the original contract. That brought the sea valve up on a level with the engine-room plate, without taking up the plating.

Q. That was a different position from which it had originally been in? A. It certainly was.

[2053—1965]

Q. He is also asked, "Do you know whether any work was ever done in the flywheel in the shop of the United Engineering Works, except under the circulating pump contract?"

A. No, sir, that is, all the work done to the flywheel belongs to the circulating pump contract."

A. That pump was put aboard about two trips before, possibly three trips, before it was installed,—it was put aboard the ship, down on the seating, and the flywheel became rusted, because it was not used,

(Testimony of Harry Paul Gray.)

salt water got into it, and it rusted, and they sent that flywheel up to the shop to be polished, after the machine was properly installed.

Q. Would this polishing of the flywheel be any part of the original contract?

A. Well, that would depend on who the blame of allowing it to become rusty would be on, whether it was on the ship—the fact that the pump being aboard the ship, it was up to them to keep it clean. Of course, had that become rusty on shore before we had put it in the ship, naturally it would have been on us.

Q. Now, Mr. Klitgaard is asked, “Do you know whether any shop on the main bearing or main bearings was ever required under the original specifications?” A. No, sir.

Q. Do you know what work on the main bearings on the ‘Hilonian’ would come under—what schedule of the libel?” Then leaving out a couple of lines where he made a mistake—I am correcting it: “A. No. 9 of the original specifications.

Q. Would that be shop or ship work?

A. That would be ship work, no, shop work.”

What, if anything, have you to say with respect to that?

A. There is two or three questions in that. [2054—1966]

Q. Well, segregate it just as you wish.

A. Well, the question as to whether there could be any shop work done on the main bearings before the ship came over there, I would say yes, because the bearings were ordered two or three months pre-

(Testimony of Harry Paul Gray.)

ceding the ship's coming to the yard—the brasses.

Q. The brasses?

A. Yes. What was the other question?

Q. Whether that work on the main bearings belonged to the Specification No. 9—the original Specification No. 9?

A. My arrangement with Matson was to give him these bearings roughed—roughed out. It could not be finished—how could I contract for a finished bearing when I did not know the size of the housings—they were rough finished. Any work that was done after they were rough finished went on to the ship.

Q. What was the work that was done on them afterwards? What was the nature of the work?

A. What would it consist of?

Q. Yes.

A. After the housings had been properly squared up, with face plates, a gauge would have been made and the bearings would have been planed to suit that gauge, and then hand-fitted so as to push down into the housings, what they call spotting.

Q. Now, where would the planing of these bearings be done? A. Be done in the shop.

Q. He is asked whether or not any swivel work was called for under the original specifications. He says: “No, sir, not called for.” Now, what, if anything, can you say concerning the swivel work?

A. There is a whole lot of terms that might be used. There is a swivel used on the trolley; some people call that a knuckle joint on the sea valve, a

(Testimony of Harry Paul Gray.)

swivel, a swivel joint; it has a great many terms. I have no recollection of whether any swivel was made or not. I could not tell you. [2055—1967]

Q. He is asked: "Could any work have been performed on the wheel of the 'Hilonian' by machinists prior to the ship going on the marine railway," and he says, "No, sir." What explanation have you to make of that, Mr. Gray?

A. Well, the wheel was there two or three days before the ship went on the dock. Naturally you would try your gauge before you put your ship on the dock to see whether the wheel was the right taper.

Q. Where did that wheel come from?

A. It came from the Union.

Q. You say it was brought over to your works before the ship got there?

A. Yes—not before the ship got there, but before the ship went into the dock. By the way, that taper did not fit either.

Q. You say it was brought over there. How was it brought over there, Mr. Gray?

A. It was brought over in a barge.

Q. You said something about the taper not being right. A. The taper was not right; no.

Q. By whom was that wheel made?

A. Made by the Union.

Q. What did you have to do with respect to it?

A. Had it file it up by hand so as to fit the gauge.

Q. So as to fit the gauge? A. Yes.

Q. He is also asked: "Could any work have been performed on the sea valves of the 'Hilonian' prior

(Testimony of Harry Paul Gray.)

to the ship going on to the marine railway," and he answers: "Yes, sir, it could have been done, but there was not."

A. Well, that was work that we spoke of a few minutes ago, that extension handle, that was on the main sea valve.

Q. By whose order was that done, do you know?

A. I do not know who ordered it; I could not tell you that. [2056—1968]

Q. Mr. Klitgaard is asked: "Would it have been possible to have done work on the sea valves of the 'Hilonian' or on her wheel for 10 hours' straight time on the 10th of September, 1909," and he answers: "No, sir." What, if any, comment have you to make on that?

A. Well, I have answered that, that they were working on the sea valve, making that extension.

Q. Before she went in to dock?

A. Certainly. The pump was being installed. The pump was installed and these changes were being made as they went along; the wheel was lying there in the barge and naturally the first thing we did was to try the gauge.

Q. How about the rudder stock, could any work have been done before she went into the dock?

A. They were working on that, these chock pieces to take the slap out of the rudder stock—out of the rudder, I should say, take the kick out of the rudder.

(An adjournment was at this time, 11:55, taken until 2 P M. [2057—1969])

(Testimony of Harry Paul Gray.)

AFTERNOON SESSION.

Mr. FRANK.—Respecting that objection, Mr. McClanahan, I would like to have it go in on page 1932, just after Mr. Gardner's testimony. I move to strike out the estimate of Mr. Gardner, and all of that testimony concerning the said estimate and the amount which he gives as his total, on the ground that the same is all based on hearsay testimony, and is itself hearsay. I understand you to say you agree that that objection may appear at the end of Mr. Gardner's testimony.

Mr. McCLANAHAN.—I agree that the Stenographer may put that objection in at the end of Mr. Gardner's testimony.

HARRY PAUL GRAY, direct examination resumed:

Mr. FRANK.—Q. Mr. Gray, do you recall that there was any lagging on cylinders in that ship, put in cylinders on that ship, except on the balance cylinder? A. I have no recollection of that detail.

Q. Have you any recollection about the reversing cylinder?

A. Certainly, that was lagged—you say the reverse cylinder?

Q. That is what I said, or the reversing shaft, or the reversing machine, or whatever it is, what is it?

A. I thought you referred to the balance cylinder when you said reversing cylinder.

Q. Well, what is it?

A. I have no recollection of that cylinder having been lagged; it might have been lagged for all I know.

(Testimony of Harry Paul Gray.)

Q. Which cylinder? A. The reversing engine.

Q. Was anything done in the shop to the covering for the slide valve? [2058—1970]

A. Low-pressure slide.

Q. I could not tell you that, because—

(Intg.) Well, that is the only one there is; both the others are piston valves.

Q. Yes. A. Yes, there was work done on it.

Q. What was it?

A. A rearrangement of the spring that holds the valve up to the seat, spring and block.

Q. What was done?

A. Well, the block was worn out, and there was no tension, not sufficient tension on the spring to hold the block up to the seat, up to its seat, to hold the valve in turn against the seat of it, and the spring was taken to the shop and a new block was fitted on it.

Q. What did that necessitate with regard to the slide valve cover? A. Well, it had to be planed.

Q. Would any man out of the shop be called to do any work with reference to the columns on the “Hilsonian”?

Mr. McCLANAHAN.—I object to that as leading, and not proper rebuttal, rebutting nothing in the case at all.

Mr. FRANK.—You are mistaken about that.

A. The columns, the front columns?

Mr. McCLANAHAN.—I still object to the question, as the evidence to properly support your question is not stated to the witness.

Mr. FRANK.—Go on, Mr. Gray.

(Testimony of Harry Paul Gray.)

A. The front columns, I believe they were filed and polished; that is the only recollection I have on that front column.

Mr. McCLANAHAN.—I move that the answer be stricken out as not responsive to the question.

A. (Contg.) I know they were in very bad condition at one time; when the ship was submerged a great many years ago they were [2059—1971] pitted; those pit marks were never taken out.

Mr. FRANK.—Q. Who would take the measurements on the columns? A. The measurements?

Q. The shopman or shipman?

A. There would not be any measurements necessary for that kind of work. If you are speaking of the front columns of the engine now, or do you mean that?

Q. Well, it is pretty hard for me to tell what they are speaking of in the examination.

A. There is all kinds of columns, but if you are speaking of front columns, that is right.

Q. Were any of the columns ever in the shop of the United Engineering Works?

A. The columns of the "Hilonian," no; absolutely no. They would have to take the cylinders off to get the columns of the "Hilonian" off; no.

Q. Was it necessary for the columns of the "Hilonian" to be in the shop in order to have a shopman work upon a detail of the columns?

A. Unless there were some of the operating gear which is fast to the columns was in the shop. For instance, your levers for operating your drain, and

(Testimony of Harry Paul Gray.)

throttle, and reversing engine, also the clamp that was put on the reversing shaft, that connects to one of the front columns.

Q. Might that appear upon a card of a workman as working on the columns?

A. That is undoubtedly what it would, because it would be fast to the column, and he would go down and get the size on the column, take the diameter and go up to the shop and bore it out.

Q. That is what I thought. Now, Mr. Klitgaard is asked: "Do you know whether any work was *ever* on a cylinder head belonging to the machinery of the 'Hilonian' except that done [2060—1972] on the small balance cylinder referred to," and he answers: "No, sir, there was no work on the cylinder heads in the shop except the one referred to." What have you to say with reference to any shop notation of work connected with the cylinder head?

A. Well, there was a little work done on the high-pressure head, but it was of minor importance, did not amount to much. My recollection of it was what they call the jacking screws.

Q. Was that shop work?

A. Well, if it was broken in there, you would have to take it up to the shop and drill it out. It was a very small item.

Q. Do you know whether it was done or not?

A. There was something done, but just exactly the detail of it I could not tell. It was so small that it made no impression upon my mind at all, except the fact that it was talked over.

(Testimony of Harry Paul Gray.)

Q. Now, Mr. Gray, was there any slab bending work done on that ship other than the smokestack?

A. Well, that is a pretty long time to remember whether there was anything done outside of the smokestack on the slab.

Q. How would the protection plates in the after part of the ship be bent?

A. That is a blacksmith's job. You mean for the stern frame?

Q. Yes. A. That is a blacksmith's job.

Q. When you say a blacksmith's job—

A. (Intg.) A slab job.

Q. How would he do it? Would he do it by heating and hammering?

A. It would be heated in the furnace, in the oil furnace, and bent on the slabs.

Q. On the slabs?

A. Yes, or the forge right adjacent to them, which is called the slab,—a big board there—two. [2061—1973]

Q. Do you remember any other work that would come under that heading, slab bending?

Mr. McCLANAHAN.—I object to that question upon the ground that the witness has not said that he remembered that.

Mr. FRANK.—That is a good objection.

Mr. McCLANAHAN.—A very good objection. You put it into his mouth, and he said it might have been done, could have been done.

Mr. FRANK.—All right. You argue that with the Court.

(Testimony of Harry Paul Gray.)

A. I know of nothing further. I do not keep much track of the shipbuilding end of the business anyway; that is always turned over to someone else, shipbuilding proper. My end of it is the engine-room more particularly.

Mr. FRANK.—I think that is all.

Cross-examination.

Mr. McCLANAHAN.—Q. Mr. Gray, you are an equal owner with Mr. Eva and Mr. Christy in the stock of the United Engineering Works, are you not?

Mr. FRANK.—I do not see what the amount of their several ownerships has to do with this case, and I object to it as immaterial.

Mr. McCLANAHAN.—Read the question.

(The last question repeated by the Reporter.)

A. Yes.

Q. And you were at the time of this “Hilonian” repair work?

Mr. FRANK.—The same objection.

A. Yes.

Mr. McCLANAHAN.—Q. As president of the company what are the duties that have been allotted to Mr. Eva generally, Mr. Gray? [2062—1974]

Mr. FRANK.—The same objection.

A. Why, whatever the duties—

Mr. FRANK.—I make the further objection that none of this is cross-examination upon any subject upon which the direct examination of this witness has been had, and that the defendant’s case is closed, and you cannot reopen it at this time and start anew.

A. Am I to answer this?

(Testimony of Harry Paul Gray.)

Mr. FRANK.—I suppose you will have to answer it. There is nobody here to rule upon these things.

A. Will you kindly repeat the question so I can answer it?

(The last question repeated by the Reporter.)

A. Well, he covers the ground of the president of any corporation, he signs the contracts and whatever such duties call for generally; also looks out for the secretary's business as well.

Mr. McCLANAHAN.—Q. He is the officeman of the trio, is he not? A. Yes, he is the officeman.

Q. Mr. Christy's duties are and were at the time of the repairing of the "Hilonian" in the shop on the other side of the bay, were they not?

A. Mr. Christy is on the other side and I am on this side.

Q. Answer the question specifically. His work was on the other side of the bay in the shop?

A. Yes.

Q. And your work was on this side of the bay, was it not? A. Partially so, yes.

Q. You are what is generally termed the outside man over here? A. One of them.

Q. Well, I mean as between you three?

A. Yes, that is correct.

Q. You are the man that went around and brought in the business?

A. Yes, as far as is in my power, I do. [2063—1975]

Q. You are secretary, are you, Mr. Gray?

A. Nominally, yes.

(Testimony of Harry Paul Gray.)

Q. And you were at that time? A. Yes.

Q. How long have you known Captain Matson?

A. I think about 8 years, possibly 9.

Q. Since you have been in business?

A. No, I had been in business about 6 or 7 years before I had met Captain Matson.

Q. Your period of acquaintanceship includes the time to date? A. Yes.

Q. At the time of the repair work, and prior thereto, to the "Hilonian" your relations with Captain Matson were very pleasant, were they not?

A. Very pleasant, yes.

Q. In fact, you did most of his work, did you not?

A. I did a great deal of it, yes; what I was capable of handling.

Q. You were pretty familiar with the "Hilonian" at the time these repairs were begun, were you not?

A. Yes.

Q. And her machinery?

A. Quite familiar, with her machinery particularly.

Q. How long have you known Carl Klitgaard?

A. Well, I should say about eight years—seven or eight years.

Q. Your relations with him were very intimate, were they not?

A. I always try to be friends with Klitgaard, yes.

Q. You and he at the time of these repairs were especially intimate, were you not?

A. No, I do not know that we were intimate any more than I would be with anybody else that I would

(Testimony of Harry Paul Gray.)

like. What do you mean by intimate?

Q. Was he not an especial friend of yours?

A. I would not say so.

Q. Didn't you and he dine together and have your nice times together?

A. I have had dinner with Mr. Dierix, over there.

Q. Answer my question.

A. I have had the same thing with Mr. Klitgaard down here, cost us about 50 cents apiece, and I have had it since the trial started, the same thing. [2064—1976]

Q. Mr. Gray, I may be wrong, but I had the impression that you and Mr. Klitgaard were very intimate. Am I wrong?

A. Well, that is a pretty broad statement; where the intimately starts, I don't know. I have a great deal of respect for Klitgaard, a pretty bright fellow, and there he was a young man, and held several quite responsible jobs as chief engineer.

Q. Now, while we are on the subject of acquaintanceship, what do you know about Mr. Gardner? You hesitated this morning to speak of him. Is he a very skilful man in his profession, known to you to be such.

Mr. FRANK.—I object to that, to bolstering up Mr. Gardner at this time, it is not proper cross-examination. Mr. Gardner told you he was very skilful, I suppose if his word is good for anything it ought to be good as to that.

Mr. McCLANAHAN.—Yes, he is so skilful that I am informed by him that you are trying to get him

(Testimony of Harry Paul Gray.)

to do work for you.

Mr. FRANK.—Is that right? Well, your information may be entirely wrong.

Mr. McCLANAHAN.—Maybe it is, but I do not hear you denying it.

Mr. FRANK.—You do not hear me denying it?

Mr. McCLANAHAN.—No.

Mr. FRANK.—If I do not deny it is no part of this record one way or the other, and whatever work I may get him to do may be simple work, not requiring a skilful man, but a man who happened to be present and saw something done, which he did not see in this case.

Mr. McCLANAHAN.—Very well. Answer the question, Mr. Gray.

A. You mean you wish me to pass on Mr. Gardner?

Q. Yes, his general reputation. [2065—1977]

A. I think his reputation is good. I know nothing against him. I have never heard anything against him.

Q. And the same with Mr. Heynemann?

Mr. FRANK.—I object to that upon the further ground that there is nothing said about Mr. Heynemann on direct examination.

Mr. McCLANAHAN.—You are the man that brought it out.

Mr. FRANK.—All right. Go on. I will see where it leads to.

A. This is very personal towards these men. I do not know what possible bearing it has in the case.

Mr. FRANK.—You need have no delicacy, Mr.

(Testimony of Harry Paul Gray.)

Gray, if you are asked the question of giving your opinion, even if it is unfavorable in details.

A. Mr. Heyneman, to commence to make personal comparisons, is not anything like as skilled an engineer as a great many others on the coast.

Mr. McCLANAHAN.—Q. For instance, Mr. Gardner? A. Mr. Gardner.

Q. Now, will you tell me, Mr. Gray, what Mr. Heyneman's reputation is as an engineer. This other remark was your personal opinion.

Mr. FRANK.—I object to the reputation. It has nothing to do with this case.

A. I do not think Mr. Heyneman has much of a reputation as a skilled engineer, nor never did have, to my knowledge.

Mr. McCLANAHAN.—Has he the reputation of being a man who understands the cost of repair work?

A. Well, I would not want him to do any figuring for me.

Q. You are speaking now of his reputation, not of your personal feelings toward him. [2066—1978]

Mr. FRANK.—It is not a question of personal feelings. He has not said he had a personal feeling.

Mr. McCLANAHAN.—His answer implies that.

Mr. FRANK.—It does not at all.

The WITNESS.—Just repeat that over again. I will try to answer it to the best of my ability.

(The last question repeated by the Reporter.)

A. Well, I don't think I can answer that question.

(Testimony of Harry Paul Gray.)

I do not see how I could be called upon to answer that question.

Mr. McCLANAHAN.—Q. That is, you do not know his reputation in that respect. Is that the idea?

A. Not very well. You see, he was out at the Fulton—he has been out of the Fulton now, well, long before it failed; that is, going on five years—8 or 9 years. Of course, he might have been a fair estimator at that time, but an estimator at that time and to-day, there would be no chance for comparison, because he would not be familiar with the conditions that existed to-day.

Q. Of course, if he kept up with the conditions he would be familiar with them.

A. Well, he would have to consider 8 hours and a great deal less output in that 8 hours than what they had in the day that he was estimating.

Q. So you feel that you are not prepared to state what his reputation in that respect is?

A. I do not think I am; no.

Q. Now, is it not a fact, Mr. Gray, that the repair work to the “Hilonian” was under contemplation for some period of time before the specifications were submitted to you? A. Oh, yes.

Q. Some months, was it not? A. Yes.

Q. What was your connection with the matter of discussing these repairs?

A. Connection with the matter of discussing these repairs? With whom? [2067—1979]

Q. That is what I want to find out. With whom

(Testimony of Harry Paul Gray.)

and the nature of them?

A. The only man that I ever remember discussing them with was the chief engineer.

Q. Mr. Klitgaard? A. Yes.

Q. So that prior to these specifications being submitted to you you had discussed with him whatever repairs were contemplated?

A. He was always telling me sometime it would have to be done.

Q. Is that all he said? Didn't you and he discuss what would have to be done?

A. Well, the circulating engine was discussed. Mr. Diericx was present when that was discussed.

Q. I do not want to refer to the circulating-engine, but I mean to the repair work called for by the specifications?

A. The column was discussed, the possibility of the crank-shaft having to be lifted was talked of, talked over with him, and the first assistant I had some talk with him.

Q. Mr. Kinsman?

A. No, it was not Kinsman. That was Martin Nagle.

Q. He was Mr. Kinsman's predecessor, was he?

A. Yes, he preceded Kinsman. Matson sent me down to look at the shaft one day. There had been some report in the office about the babbitt being out of the bearings, and I went down there in the crank-pit, and I went down and found it was run out of two, a large part of it, and at that time Mr. Nagle and

(Testimony of Harry Paul Gray.)

I discussed how it had happened, run out, and what time.

Q. Your principal discussion, however, as I understand it, was with Mr. Klitgaard? A. Oh, yes.

Q. Do you know whether there had been any discussion as to these repairs prior to the submission of the specifications, between Mr. Klitgaard and any other representative of a shop here?

A. Of a shop here?

Q. Yes. [2068—1980]

A. Well, I could not tell you that, I don't know.

Q. You don't know?

A. No. I could not tell you that.

Q. Did you take part in compiling these specifications? A. In compiling them?

Q. Or suggesting to Klitgaard what they should contain?

A. No. I had nothing to do with the specifications.

Q. Well, the matter that went into the specifications? A. No I had nothing to do with the details.

Q. You did not confer with Mr. Klitgaard?

A. I had talked with Klitgaard, certainly.

Q. As to what was to be done?

A. What he thought was necessary to be done.

Q. You and he discussed that matter?

A. That is the common position, any man in a machine-shop talks with an engineer where he is accustomed to doing the work on the job.

Q. When these specifications reached your hands, why you had some knowledge at that time of what

(Testimony of Harry Paul Gray.)

they were supposed to contain?

A. When they reached my hands there was no trouble to read them. I would not have to suppose anything then.

Q. Well, you were not surprised at what you found in the specifications, they were in accord with your discussions with Mr. Klitgaard?

A. There was some additions to them, I believe.

Q. But in other respects they were in accord with your discussions? A. About the same.

Q. What was your opinion with respect to Specification No. 9? Read the specification. What was your opinion with reference to whether the crank-shaft would have to be removed or not?

A. Well, I believed that the crank-shaft would have to come out and go to the shop; that is my opinion of it. It had a [2069—1981] decided athwartship motion all the way from a thirty-second to possibly a sixteenth.

Q. Did Mr. Klitgaard coincide with you in that?

A. No, I don't think he did. I think he was averse to that.

Q. After this discussion it was that you at the request of Captain Matson made an examination of the crank?

A. I could not tell you the period that I made the examination, whether it preceded this discussion or not.

Q. But it was as a result of your discussion over the repair work? A. Yes.

Q. Now, you remember Mr. Christy was brought

(Testimony of Harry Paul Gray.)

into that discussion, do you not? A. Yes.

Q. Do you remember going out to make an examination?

A. I was out of town at that time; he told me of it afterwards when I came in.

Q. That he had gone out and made an examination personally himself? A. Yes.

Q. As a result of all these discussions it was undecided, was it not, at the time the specification was finally submitted to you, whether it would be necessary to take the crank-shaft out or not?

A. Undecided by whom?

Q. By all of you. It was a matter that was left in abeyance until the work should commence?

A. Yes.

Q. Were you present when it was decided that the crank-shaft need not come out?

A. When they first run the line I was not there to check up the shaft but they afterwards run the line to satisfy Matson, and I happened to be present there when they ran the second line. The decision made by the engineers in charge was that the shaft would not need to come out.

Q. That was at the time you were there? [2070—1982]

A. Yes, I was there the second time they run the line.

Q. You coincided with that decision, did you?

A. Well, there was nothing else to do. The shaft was straight.

Q. Then you did coincide with it?

(Testimony of Harry Paul Gray.)

A. This was because there was no means of telling until you had taken the shaft out.

Q. Mr. Christy coincided did he?

A. I do not think he was there at the time.

Q. But you and Klitgaard did?

A. It was decided not take the shaft out fully by all concerned.

Q. That, of course, made some difference, did it not, in the course of the work contemplated under the specifications?

A. Contemplated under the specifications, it would have made a difference, yes.

Q. And it was known at the time of the submission to you of the specifications that that would make some difference in the course of the work?

A. Providing the specifications were complied with, yes, certainly it would make a difference whether the shaft would come out or be left in position.

Q. I say that was known to you at the time the specifications were submitted to you?

A. Exactly.

Q. Now, your bid of \$11,749, as embodied in "Christy Exhibit B" included the removal of the crank-shaft in accordance with the original specifications, did it not? A. Yes, oh, yes.

Q. What was the understanding about this undetermined matter of the taking of the crank-shaft out?

A. Well, there was a timekeeper sent to the yards to look out for the job as a whole, and he was sup-

(Testimony of Harry Paul Gray.)

posed to determine what the loss or what the saving would be. [2071—1983]

Q. And if there was a saving the Matson people would get the credit for it?

A. Most assuredly they would have got the credit for it; that is what they put the timekeeper on the job for.

Q. Now, is that your writing, Mr. Gray, upon here (pointing)? A. No, that is not my writing.

Q. I refer to the following: "This bid submitted on account of its being worth \$250 to have vessel and U. E. Works to complete work already contracted for in the shape of retubing donkey-boiler and retubing Howden system, etc., per Capt. Saunders." A. No, that is not my writing.

Q. But it was in accordance with your idea at the time, was it not?

A. I told Saunders that—yes, that was the reason that we cut our figure.

Q. Cut your figure from the former bid?

A. Because I had quite a bit of work on there. I had that pump to install and all these jobs that were mentioned here.

Q. And it was your desire to have the ship over there and it was worth \$250 in your judgment?

A. It was worth \$250 to get it over there. It would have cost me that, or probably more to have done it in some competitor's yard.

Q. Was that your reason for coming down in your bid? A. That is the reason I cut the figure.

Q. You remember the meeting in Captain Mat-

(Testimony of Harry Paul Gray.)

son's office when the bid submitted by you and the Risdon and the Union was rejected, do you not?

A. It was rejected.

Q. You were there, were you not?

A. Whether he rejected that positively at that time, or not, I could not tell you. [2072—1984]

Q. Don't you remember that you waited and had a private talk with Captain Matson after the other two men from the Risdon and Union had left?

A. Well, I remember he took exception to the price at that time, and said he thought it was too high.

Q. And don't you remember—

A. (Intg.) That is where it rested.

Q. And don't you remember at that time this time-keeper was suggested to keep track of the work so that you could find out what the reduction would be?

A. It was generally understood there was going to be a timekeeper on the job, after he had come to the conclusion that they were not going to let it out on a contract—that was understood.

Q. It was understood?

A. After it was understood that they were not going to put it out on a contract we all understood at that time, we knew there was going to be a time-keeper on the job.

Q. After who understood it was not going to be let out on a contract?

A. After I and Matson and all of them; they came to that decision; they were not going to let it out on contract.

(Testimony of Harry Paul Gray.)

Q. Do you mean to say that this bid of August 2d, being Christy Exhibit "B" was not accepted by the Matson Navigation Company?

A. He did not accept it. That is the reason he sent the timekeeper over there.

Q. Answer the question directly—that bid was not accepted? A. No, he did not accept it.

Q. He did not accept it?

A. He did not accept it.

Q. You are not confusing your statement with your first bid which is embodied in Christy Exhibit "A" of July 27th? [2073—1985]

A. He didn't accept that either.

Q. He didn't accept either of them? A. No.

Q. Will you please now, Mr. Gray, tell me the circumstances under which that bid was rejected, the last bid, Christy Exhibit "B"?

A. Matson made the statement that he was dissatisfied with the price and thought it should be done for less money.

Q. That is what Captain Matson said?

A. That is what he told me, and he said he was going to send a timekeeper to the yards to get the benefit of whatever saving he could get on the job.

Q. Saving on what job?

A. Below this price; he claimed that that price was too high.

Q. Did you say that you would do it for that money?

Q. Did I say I would do it for that money? If they stuck to the specifications, certainly.

(Testimony of Harry Paul Gray.)

Q. And he said that he would not pay you that price? A. His idea was that it was too much.

Q. I want to know what he said.

A. He did not say he would not pay it.

Q. What did he say?

A. He said he was dissatisfied with it, he felt it was too high, and he was going to send a timekeeper to the yard to keep track of the time on the job.

Q. And it was to be a time and material job?

A. Time and material job under those conditions. I told him, I said, "if those specifications are adhered to I will see that it don't cost any more than \$11,749."

Q. In other words, that was an outside price?

A. A limiting price.

Q. It should not cost more than that?

A. Not any more than that. [2074—1986]

Q. So, then, you and he did have a contract by which this work was to be done in strict accordance with the specifications not to exceed \$11,749?

Mr. FRANK.—I object to that. That is a conclusion of law which the Court will determine. The question is what was said, and he has already testified to that. The witness is not the one to determine what the contract was.

Mr. McCLANAHAN.—Q. Will you answer that question? Read the question.

(Last question repeated by the Reporter.)

A. Well, I told you what I said. I don't know as I have anything more to say regarding it.

Q. Read the question to the witness again.

(Testimony of Harry Paul Gray.)

(Last question again repeated by the Reporter.)

A. Providing they stuck to the specifications.

Q. Your answer is yes? A. Yes.

Q. And the work was to be done in 25 days, was it not?

Mr. FRANK.—Well, the contract speaks for itself.

A. 25 days, yes.

Mr. McCLANAHAN.—Q. Who was present when that agreement was finally reached?

A. Captain Matson, myself—

Q. (Intg.) Captain Saunders was there, was he not?

A. You could not prove it by me; I don't know.

Q. You don't remember?

A. I was doing my business with Captain Matson.

Q. You don't remember whether Captain Saunders was there? A. No.

Q. Do you remember whether Klitgaard was there or not? A. I could not tell you that.

Q. Don't you remember when you came out of the door of Captain Matson's office that you met Klitgaard and told him that you [2075—1987] had got the job?

A. Why should that make any impression on my mind? That was merely a matter of detail. The question here was, did I get the work; that was all I had in my mind. What I told Klitgaard afterwards, how should that make enough impression on my mind to last for a number of years?

Q. Well, Mr. Gray, you don't remember it then?

A. I don't remember.

(Testimony of Harry Paul Gray.)

Q. But if Mr. Klitgaard should say that you would not want to dispute it, would you?

A. I would not dispute it, no.

Mr. FRANK.—Q. Mr. Klitgaard's memory of details is better than yours, is that it, of things that don't affect him?

A. Mr. Klitgaard's imagination is better than mine.

Mr. McCLANAHAN.—Do not interrupt my cross-examination, Mr. Frank.

Q. Mr. Gray, after this agreement didn't you have a good deal to do with Captain Saunders with reference to the delivery of the ship, the time of delivery?

A. Well, the understanding was we were to get the ship within a given time. That was kept in view at all times.

Q. I say that was the understanding between you and Captain Saunders, was it not?

A. The understanding was—there was Captain Saunders and Captain Matson and Klitgaard and Putzar, they all understood it.

Q. Well, don't bring Mr. Putzar in because he has not appeared upon the scene yet. I am speaking now, Mr. Gray, of the time immediately following the agreement between you and Captain Matson. Did you and Saunders not then confer as to when the ship would be delivered to the works? You remember that he had charge of the discharging of the "Hilsonian"? [2076—1988]

A. The time she was going to the shop, you mean?

(Testimony of Harry Paul Gray.)

I thought you meant the time of the delivery of ship to them.

Q. No, the time she was delivered to you for the work?

A. The understanding was the ship was to get over there as soon as she could. I sent men to this side of the bay to start the job, to get it going.

Q. I see. So some of your men got on the boat on this side of the bay? A. Yes.

Q. Then you must have had an understanding as to when you were to have the ship?

A. Well, my understanding, of course, was we were to get the ship as soon as she was discharged.

Q. I say it must have been fixed upon?

A. Not necessarily. I was going ahead with my job.

Q. You sent men over here to work on the ship?

A. I was going ahead with my job. It would not make any great difference to me whether it was to-day or to-morrow, as long as she got to the yards.

Q. You did, however, send men over here and put them on the ship on the day she came to the shop?

A. The day preceding the day she came to the shop there were men from the shop taking down the handrails and gratings and stuff like that.

Q. And when she finally arrived at your shops, you were prepared to receive her and commence the work? A. Yes.

Mr. FRANK.—I would like to ask you, Mr. McClanahan, what this is all rebuttal of. It is all matter that has been testified to and nobody has dis-

(Testimony of Harry Paul Gray.)

puted it, and you are going over and over it again, and you have been charging me all the time with filling up the record, but you are a masterhand at doing it yourself.

Mr. McCLANAHAN.—Is that all? [2077—1989]

Mr. FRANK.—For the present.

Mr. McCLANAHAN.—Q. Now, we will come back to Mr. Putzar, Mr. Gray. How long had you known Mr. Putzar at the time of the reaching of this agreement with Captain Matson?

A. Why, I never knew Putzar at all, probably, until when he was the port engineer for the Oceanic Company, and we had the “Mariposa” over there at the drydock; she was stuck on the dock, and I got acquainted with him then.

Q. How long was it before this agreement?

A. It might have been two years or a year and a half.

Q. I understood from your direct examination that you suggested Mr. Putzar to Captain Matson, amongst others.

A. No, I could not state that positively. I suggested these other two men I know, because I knew them personally.

Q. Well, can't you refresh your memory on that?

A. I might have done so; he was a man out of a job, and he was a man that bore a very high reputation, and undoubtedly I would have suggested him as being a possible candidate for a job of that kind.

Q. Keeping the time?

(Testimony of Harry Paul Gray.)

A. Keeping the time or anything else aboard the ship.

Q. Well, he was suggested by you to Captain Matson to keep the time, was he not?

Mr. FRANK.—He has already said that he has no memory of doing so.

A. Well, I certainly could recommend him for a job like that, to keep the time. It is more a question of having a clever engineer than it is a question of a clerical position.

Q. That is, your idea is that a good timekeeper is a man who is a clever engineer.

A. I should think so, yes. [2078—1990]

Q. Would you put it this way: A clever engineer is a better man to keep time than one who is not?

A. Yes, that would be probably a better way of putting it.

Q. You knew Mr. Putzar to be a clever engineer and a good timekeeper?

A. He had a very excellent reputation as an engineer. I knew nothing about him beyond that.

Q. Did you ever have anything to do with employing him? A. None whatever, absolutely nothing.

Q. When you secure work, as you did in this instance, do you follow the work through its stages?

A. As much as in my power, as much as I can.

Q. Is not that Mr. Christy's business?

A. To a certain extent; but if I have a certain line of business that I look out for on this side I often-times follow it to the other side, as much as is in my power to do so. I do not give my whole time to it.

(Testimony of Harry Paul Gray.)

Q. That would interrupt your outside work over here; is that so? A. Yes.

Q. In this particular case how much of your time did you give to the supervision of the work as it was under progress by the United Engineering Works?

A. I suppose the amount of time I spent on the other side was probably two hours a day.

Q. Was the "Hilonian" the only work that you were doing at that time? A. No.

Q. Well, then—

A. (Intg.) I had many others.

Q. Then you spent two hours over at the shops?

A. Two hours on the other side of the bay.

Q. You do not mean to say that you spent two hours a day on the "Hilonian"? [2079—1991]

A. Well, I was over on the other side of the bay about two hours a day while that work was going on; the whole shop was turned over to the "Hilonian"; there was practically nothing else doing.

Q. I would still like to ask whether you mean that you spent two hours of the day on the other side of the bay attending to the supervision of the "Hilonian" work? A. It was on the "Hilonian."

Q. Two hours a day? A. Two hours a day.

Q. For every day that she was there?

A. Do you want me to state that it is six days a week I was over there for two hours a day out of the six days?

Q. I want you to state the fact that is all.

A. I was speaking on an average two hours a day throughout the week.

(Testimony of Harry Paul Gray.)

Q. Some days you were not over there at all?

A. Possibly not at all, and I would be over there and spend a day—I did many a day, I spent half a day, and Sundays and nights.

Q. Spent half a day? A. Oh, yes, and all day.

Q. Have you any recollection now of spending all day on the “Hilonian”? A. Oh, yes.

Q. What was the object of so doing—what was the purpose to be accomplished; what did you do that for?

A. The purpose was to see how the work was progressing, to size up the situation and see if they were going to get the ship out on time.

Q. Was this an unusual job?

A. In what way unusual?

Q. In any way as to time or material or what—it was a rush job?

A. It was not unusual on the original specifications, as originally contemplated, there was nothing unusual about it to [2080—1992] have done it in the 25 days. But it is the work that they kept finding afterwards that delayed the job.

Q. It was unusual, then, only in respect to the extras?

A. Extras and the period at which they found them. Had they found them all the first or second or third day when she got over there it would not have been so bad but when it was a week before sailing and they were still finding work to do why naturally it made it rather bad.

Q. Now I take it you are speaking advisedly when

(Testimony of Harry Paul Gray.)

you say a week before sailing so I am going to ask you what they found a week before sailing that was an extra.

A. I will tell you one thing they found about a week before sailing.

Q. About a week; you mean about seven days?

A. Do you want the exact days?

Q. Well, if you want to give it, yes.

A. Well, the tank-top the after plating in the tank-top was not discovered until about 5 or 6 days before she sailed. That is one item.

Q. That is the after-plate that you referred to on the direct examination? A. Yes.

Q. That is, the work on the tank-top had been completed?

A. The work as specified had been completed.

Q. But when you had tested the tank they found these leaks A. Yes.

Q. Anything else that you can remember?

A. Well, that is merely one item. There were a great many. That is the only one I will state.

Q. That is the only one you can remember, isn't it?

A. That is the only one I can remember. [2081—1993]

Q. Mr. Gray, when you accepted this work under the specifications which were submitted to you, you contemplated, did you not that there would be necessity for overtime work?

A. We had to work two shifts.

Q. Is that an answer to my question?

A. Yes, that answers it.

Q. That is an affirmative answer?

(Testimony of Harry Paul Gray.)

A. That answers it in every way.

Q. It is an affirmative answer?

A. Two shifts does not mean overtime. Straight shifts.

Q. I am not quite familiar with your terms. I see I will have to ask the question again and ask for an affirmative or negative answer. These two shifts—the machinists will work—you can work a machinist's crowd 8 hours and you can get another crowd of machinists to go on and work 8 hours in the same 24, and if you want to you can get another crowd.

Q. Now, my question is, did you contemplate when you accepted the work under the original specifications that you would have to work overtime?

A. There naturally would be some overtime on a job like that.

Q. You contemplated that? A. Yes, some.

Q. And that overtime would be made necessary by the time limit in which the job was to be done?

A. Some of it, yes, certainly.

Q. By the way Mr. Gray, you identified a set of specifications on your direct examination as being the only set that you had ever seen, or knew anything about. I am going to show you all of the specifications that have been introduced in evidence here and ask you to select again that specification (showing).

A. This one. (The witness hands [2082—1994] counsel Christy Exhibit "C.")

Q. Why Mr. Gray, do you select Christy Exhibit "C" from "Saunders's Exhibit 1," "Gardner's Exhibit 1" and Siversen's Exhibit "A"?

(Testimony of Harry Paul Gray.)

A. Well, I will tell you: you see this stamp up here? They stamp that stuff when it comes into the office and then hand it over to me. This is primarily what I recognize that by.

Q. I noticed that when you were first handed that exhibit by Mr. Frank, you paid particular attention to the second page of it on which that stamp mark does not appear. What is there on the second page that attracts your attention?

Mr. FRANK.—I did not notice that he did that.

A. It is on the same kind of paper and comes in regular sequence. If you want me to positively identify this, I suppose I would have to read it over with the other specifications that you have got.

Mr. McCLANAHAN.—Q. Do you mean that that is a copy or the original of the specifications under which you made the bid?

A. This is the way the specifications are stamped in the office and they send them down to my office; this is the kind of stamp they put on it (pointing).

Q. That does not quite answer my question, Mr. Gray. I want to know whether you want us to understand that that is a copy or the original of the specifications on which you made your bid?

A. That is the original.

Q. That is the original of the specifications on which you made your bid? A. Yes.

Q. Now, I call your attention on this specification to the time limit as 26 days? A. Yes.

Q. I call your attention to your bid of August 2d on which [2083—1995] the time limit is 25 days

(Testimony of Harry Paul Gray.)

and ask you if you can explain how the matter—

A. (Intg.) Perhaps I thought I might get an extra stand in with Captain Matson by cutting a day off of this. That is very reasonable. I have done that time and time again.

Q. I show you "Matson Exhibit 5"—I will withdraw that. You think then that that was your purpose in putting 25 days in there?

A. Undoubtedly it was; yes. If I thought I could do it in a little less time than they had put, why I am liable to do that, because it means much to them to get the ship as early as they could.

Q. I understand, then, Mr. Gray, that your idea of this matter of overtime is that it was largely caused by the extras? A. Yes.

Q. As a matter of fact, don't you know that you began to work overtime as soon as the ship went over there? A. Yes.

Q. That was not because of any extras, was it?

A. No, there was not very much overtime then, not at the start. There was double shifts then.

Q. But there was overtime at the start?

A. You would have to have overtime on a job like that. No man in the world could handle that job without some overtime, to some extent.

Q. Who, by the way, Mr. Gray, figured on this work? A. Who figured on it for our shop?

Q. Yes. A. I did.

Q. You did? A. I am the guilty party.

Q. Was it a matter of discussion with your other partners, Mr. Eva and Mr. Christy?

(Testimony of Harry Paul Gray.)

A. No, I had no discussion.

Q. They knew you were bidding on it, did they not? [2084—1996]

A. Yes. They would not bother with a job like that, a ten thousand dollar job; they would not discuss it with me if they thought I was taking new precautions, which I generally do.

Q. But when you finally got the work they knew of that, did they not? A. Knew what?

Q. Knew you had got the work?

A. They must have known it; the ship went over there.

Q. When you enter into a contract for work, how do you handle it with your office?

A. The office handles it certainly.

Q. Do you turn it in as a contract?

A. Yes, certainly. Except a contract has to be signed by the President of the company, an absolute contract.

Q. An absolute contract has got to be signed by the President of the company?

A. That is the customary method.

Q. You made a contract for a circulating-pump, didn't you, with Captain Matson? A. Yes.

Q. Didn't you sign that "H. P. Gray"?

A. Yes.

Q. Didn't have to be signed by the President of the company, did it?

A. Well, you are speaking now—for instance, we do a lot of steam-schooner work. I have signed up probably—we have got 6 or 7 steam-schooners we are

(Testimony of Harry Paul Gray.)

building now. Those contracts are all signed by the President of the company. Is that what you are driving at—is that what you want to know?

Q. You will remove all my examination on this point if you will admit that you have the power as an officer of the company to make contracts?

A. I do not think that is true.

Q. You do not think that is true. Then I ask if you did not have the power to make that circulating-pump contract?

A. Well, I made it—I might have made it verbally.

Q. There is a copy of your letter?

A. Yes. [2085—1997]

Q. Signed by you? A. Yes.

Q. You had that power, didn't you?

A. Certainly.

Q. Didn't you have power to make this Howden forced-draught contract, being "Curtiss Exhibit No. 5"? A. I signed that, yes.

Q. You had power to do it, didn't you?

A. I signed it; yes.

Q. You had power to do it as an officer of the company?

Mr. FRANK.—That don't exactly follow. He might have received his power; what are you talking about?

Mr. McCLANAHAN.—Let the witness answer the question.

Mr. FRANK.—He has answered you.

A. The articles of incorporation of the United Engineering Works say that the President and Secre-

(Testimony of Harry Paul Gray.)

tary shall sign all contracts. Isn't that correct, Mr. Curtiss?

Mr. FRANK.—Do not appeal to Mr. Curtiss, Mr. Gray.

Mr. McCLANAHAN.—Just answer the question.

A. The only way is to go and look the book up.

Q. You had power to sign that contract?

A. I signed it; that is all I will say.

Q. And the work was done under it?

A. The work was done.

Q. Without any question?

A. Without any question; it was a good job.

Q. I also refer you to the donkey-boiler contract. You had power to sign that, didn't you?

A. Whatever power I had with this, I must have had with that one.

Q. Now, Mr. Gray, we are not to take you as occupying the attitude that has heretofore been occupied in this case by your [2086—1998] associates, that there was no contract in this matter. You made a contract, did you not?

Mr. FRANK.—One moment. I object to that. I object to that and I instruct the witness he need not answer a question of that sort. It is a conclusion of law, whether he made the contract or not. He has already told you that the proposition was submitted and the whole details of it, and that Captain Matson refused to accept it, and told him he would put a timekeeper on it, and he told you all the details about it. Now, whether that was a contract or not a contract, is what the Court will determine. This man is

(Testimony of Harry Paul Gray.)

not a lawyer, nor is any witness called upon to—

Mr. McCLANAHAN.—(Intg.) It is going to give somebody some trouble—

Mr. FRANK. (Continuing.) To answer any legal questions.

Mr. McCLANAHAN.—Please answer the question, Mr. Gray.

A. What was it?

Mr. FRANK.—Read the question and my instruction to him.

(The last question and instruction of Mr. Frank repeated by the Reporter.)

Mr. McCLANAHAN.—Answer the question, Mr. Gray.

A. Well, I have answered that two or three times. It seems to me that I proposed to do a certain amount of work for a given sum, and Matson would not accept it, and he said he would put a timekeeper on and see if he could not save himself some money; it seems to me that answers it. What more of an answer can you have.

Q. Then, Mr. Gray, you do maintain that you made no contract with Captain Matson?

A. That is not for me to judge. I cannot see where I come in on judging whether it was a contract or not.

Q. Aren't you the man that goes around and gets work under [2087—1999] contract?

A. Certainly.

Q. Can't you tell whether you made a contract with Matson or not? A. He turned it down.

(Testimony of Harry Paul Gray.)

Q. Then you take the position that you made no contract? A. He turned the contract down.

Q. You take the position, then, that there was no contract with Captain Matson?

Mr. FRANK.—What difference is it what position he takes in this case? He has told you the whole story and the Court will determine whether he made a contract or not, if it is material. He has told you he put a timekeeper on—

Mr. McCLANAHAN.—Do not encumber the record any more than you have to, Mr. Frank.

Mr. FRANK.—You should not encumber the record by doing something that you know is not proper under the circumstances. You have got everything you can legally call for.

Mr. McCLANAHAN.—Q. Answer the question, Mr. Gray.

Mr. FRANK.—You do not have to answer the question; you have already answered it.

Mr. McCLANAHAN.—Q. Answer the question, Mr. Gray.

Mr. FRANK.—Take your instructions on that subject from me, not from Mr. McClanahan.

A. Then I refuse to answer it.

Mr. McCLANAHAN.—I shall ask for judgment in this case unless that question is answered, and move that all the evidence of this witness be stricken out.

Mr. FRANK.—On what ground?

Mr. McCLANAHAN.—Upon the ground that he is a party to this action, and he is the man that sub-

(Testimony of Harry Paul Gray.)

mitted this bid, and he ought to know whether that bid was accepted or not.

Mr. FRANK.—He has already told you that it was not accepted. He has answered your question. You are now asking him to characterize it as a contract or otherwise, and you can make any motion you desire, on those grounds.

Mr. McCLANAHAN.—I have stated what I intend to do.

Mr. FRANK.—Very well. [2088—2000]

Mr. McCLANAHAN.—Q. Now, you say that you told Mr. Eva and Mr. Christy of having entered into this arrangement with Captain Matson. Is that correct?

A. As soon as one of those jobs is gotten, why it goes back through the office, and they knew even if I did not tell them, that I had the job.

Q. Answer my question; did you tell them, or did you not? A. I undoubtedly told them.

Q. Christy and Eva?

A. Undoubtedly, yes, that I had got the work on the ship.

Q. What did you tell them?

A. Why, that is three or four years ago. Why do you ask me that?

Mr. FRANK.—One moment, Mr. Gray. I object to it also on the ground that it has nothing to do with the direct examination of the witness, that it is not proper cross-examination, and is simply encumbering the record with a lot of useless matter, and also an attempt to reopen his case.

(Testimony of Harry Paul Gray.)

Mr. McCLANAHAN.—Q. Your answer means, does it, that you cannot remember what you told them?

A. Well, I told them undoubtedly that we had this job, or at least I told one of them; in turn, the specifications were copied or sent across the bay; some intimation was given them that the ship was coming over; they would have known it anyway, because the ship was sent across there.

Q. Mr. Gray, coming back to the proposition of how you treated in the office contracts that you make, will you please tell me how you treat them when you make a contract what do you do with it?

A. Well, a contract is written out and attached to the specifications and it is initialed; each sheet is initialed and corrections initialed, and then the president signs it and I sign it. [2089—2001]

Q. And then what do you do with it?

A. We put it in the safe and we send one to the man we are doing the work for.

Q. Then what do you do in furtherance of the contract? A. Try to do the work.

Q. Don't you keep separate track of your contracts and your time and detail work in the office?

A. Contracts and time and detail work?

Q. Yes. A. Certainly.

Q. Don't you keep one separate from the other?

A. Yes.

Q. Didn't you in this case keep these separate?

A. There was no contract, that was the trouble.

Q. Just wait a minute. In this case didn't you

(Testimony of Harry Paul Gray.)

keep this separate from the time and detail work when it first went into the office? A. I?

Q. Well, whoever had the matter in hand.

A. Well, you will have to ask the man that had it in hand. I don't know.

Q. You don't know?

A. I could not tell you that. No; I do not know. I am not a timekeeper. I have got other things to attend to.

Q. Now, Mr. Gray, you have in your direct examination referred to changes in the original specifications. You remember that, do you?

A. Yes, there were many alterations made in the work.

Q. You remember that you said that Klitgaard tried to get you to make a swap of work?

A. Yes, that covers it. A swap is a very good term; one job for another.

Q. One job for another? A. Yes.

Q. And you declined to do it? A. I did.

Q. If it was a time and material job, why did you decline to do it? What difference would it make to you?

A. It would [2090—2002] not have made a particle of difference.

Q. Why did you decline to do it then?

A. He might have had some kind of an idea in his head it was a contract.

Q. What did you decline to do?

A. Declined to swap one for the other, put in a 600 or 700-dollar patch for a \$200 column.

(Testimony of Harry Paul Gray.)

Q. Did you not know then that Mr. Klitgaard, when he approached you with this proposition was maintaining that it was a contract?

A. I don't know what Mr. Klitgaard maintained. Any man that could keep track of Mr. Klitgaard's mind was a smarter man than I am.

Q. Was that absolutely not a necessary part of your knowledge, if he came to make a swap with you? A. No, it was not.

Q. By the way: Who had charge of this work, the mechanical end of it, for the United Engineering Works?

A. There were several men that had charge.

Q. Who was the chief, the boss—who was the man that was higher than anybody, outside of the partners? A. Outside of what?

Q. Outside of the partners, outside of you, Eva and Christy?

A. Higher than anybody outside of us?

Q. Yes. Williamson, was it not? Was he not the general foreman?

A. Yes, he was the general foreman of the yard.

Q. You are not hesitating about answering that?

Mr. FRANK.—He has answered a very different question from what you put to him.

A. It is pretty hard to get at the bottom of what you are asking me.

Mr. McCLANAHAN.—Q. I do not want to confuse you, Mr. Gray, and I do not want to be unintelligible. If I do not [2091—2003] make myself plain, I am trying to do so.

(Testimony of Harry Paul Gray.)

Mr. FRANK.—The question and answer is a very different one from what you were asking him.

A. I had an idea there was somebody outside, from the way your question came, that had power to control the place.

Mr. McCLANAHAN.—Q. Mr. Williamson was the man above all others that you held responsible, was he not?

A. He is practically the superintendent of the yard, yes.

Q. What were his powers with reference to the “Hilonian” job?

A. Why, he generally looked out for the work. He himself went down and run the line through the ceiling—he ran the lines when the crank-shaft centers were taken from the main bearings, as I requested him to do that.

Q. Is he not your representative in your absence?

Mr. FRANK.—Representative for what purpose?

Mr. McCLANAHAN.—For all purposes connected with his work.

A. Christy is over there most of the time; very seldom he is not there.

Q. In the absence of Mr. Christy is he not your representative?

A. In a mechanical way, he would be.

Q. Is that the only way he represents you?

A. The only way I know anything about, yes—he is a very skilled mechanic.

Q. Have you talked with Mr. Williamson about this case?

(Testimony of Harry Paul Gray.)

A. I guess I have talked with everybody in San Francisco about this case.

Q. Have you talked with him with reference to your testimony in this case?

A. What part of the testimony?

Q. Any part of it.

A. Oh, yes, I have spoken to him.

Q. Have you talked with him with reference to compensation, [2092—2004] this swap work?

A. Yes.

Q. He is going to testify, is he, on that subject?

A. I don't know. You have got me; I am not running the case.

Q. What did you and he have to say about this compensation work, so-called?

A. Well, I had about the same to say to him that I had with Klitgaard, whatever it was, that Klitgaard was always trying to swap one thing for another. I don't know what he had in his mind.

Q. Did he tell you—

A. (Contg.) Louis came to me with two or three propositions, and I told him it was impossible, it could not be done.

Q. Who is Louis? A. Louis Williamson.

Q. What propositions did he come to you with?

A. He came to me particularly with that balance business.

Q. The balance cylinder? A. Yes.

Q. What did he say when he came to you with that?

(Testimony of Harry Paul Gray.)

A. Well, he said Klitgaard had made a proposition.

Q. What was it?

A. To put on a balance cylinder instead of doing the work as specified on the low pressure seat in the valve.

Q. What else?

A. That covers it, with reference to that item.

Q. What did Williamson come to you for, to get your permission?

A. Well, he came to me with Klitgaard's desire, with what Klitgaard requested.

Q. Wanting your permission, did he?

A. Yes, wanted my permission.

Q. And what did you tell him?

A. Told him no.

Q. Told him no? A. Yes.

Q. Is that the last you heard of Klitgaard's desire after [2093—2005] you had turned it down?

A. In that matter?

Q. Yes.

A. Undoubtedly it was the last of it.

Q. That was the last of it? A. Yes.

Q. Did Mr. Williams have power to change a contract which you as representative of the United Engineering Works might make?

A. He has no power to change any contract.

Q. He did not? A. No.

Q. This was a contract which was changed, was it not, by the substitution of that low pressure?

A. Well, you know as well as I do what was changed.

(Testimony of Harry Paul Gray.)

Q. That balance cylinder?

A. It was changed certainly. The balance cylinder was put in there—

Q. (Intg.) Mr. Williamson had no power to change that if it was a contract?

A. Why, he has no power over contracts, he could not change contracts.

Q. When did you first know that this balance cylinder was going to be substituted for the work called for in the specifications?

A. I never knew it was going to be substituted.

Q. I say, when did you first know it?

A. I never knew it was going to be substituted—it was his proposition that it should be substituted.

Q. It was substituted finally, was it not?

A. You are trying to put those words in my mouth. I did not say that.

Q. I say it was substituted? [2094—2006]

A. No, it was not substituted—that the balance cylinder was substituted for the work on the low-pressure valve—is that what you say?

Q. Yes.

A. No, I never said that; it never was done.

Q. The low-pressure valve work was not done, was it? A. No.

Q. And the balance cylinder was, was it not?

A. Yes.

Q. Mr. Gray, when did you learn that the low-pressure work was not going to be done, was going to be omitted?

A. I learned that as soon as they took the low-

(Testimony of Harry Paul Gray.)

pressure away from the seat.

Q. And who did you learn it from, or did you learn it simply from seeing it?

A. I could not tell you.

Q. Did you speak to Klitgaard then about it?

A. He undoubtedly spoke to me about it.

Q. Then what did he say?

A. He said he was not going to do it.

Q. What did you say?

A. Probably told him he could do whatever he pleased.

Q. Couldn't he have done what he pleased in the first place?

A. He certainly could have done anything he chose to do.

Q. Then you have no explanation to make of the reason why he came to you and asked for permission to do something that he had a right to do? I am speaking of Klitgaard.

A. What did he come to me and ask to do?

Q. He came to you and asked you to substitute one work for another? A. Yes.

Q. Now, I ask you if you have any explanation to make of why he did so come, if he had the right to do it without asking you?

A. Did he have any right to make a substitution? I never [2095—2007] heard that he had. You are speaking of Klitgaard, aren't you?

Q. Yes.

A. You say that he had a right to substitute one job for another without consulting me.

Q. No, I do not. I do not intend to say that. I

(Testimony of Harry Paul Gray.)

do intend to say this: that you have said that Mr. Klitgaard could do this.

A. He could stop the work on the low-pressure valve and he could order work on the balance-cylinder.

Q. Exactly. Now, if he could do that without your permission, why does he come to you for your permission to make that a substitution work?

A. You can never prove that by me.

Q. You don't know why he did?

A. I have not the remotest idea.

Q. Did you tell him that you did not understand why he wanted to do something that he had a right to do anyway, that is, changing the work?

A. Did I tell him that?

Q. Yes. A. No, I did not tell him that.

Q. You told him you would not do it.

A. I told him I would not do it.

Q. You say the work to be substituted was of greater value than the work to be omitted in this particular instance. A. Yes.

Q. The balance-cylinder. A. Yes.

Q. Was that the reason you would not do it?

A. What other reason could I have?

Q. I am asking you.

A. Certainly it was the reason.

Q. That was the reason? A. Yes.

Q. There was more profit in the larger work, was there not, if it had been done, on time and materials?

A. Yes, there would be; certainly there is, I suppose.

(Testimony of Harry Paul Gray.)

Q. Why did you decline to make a greater profit by a larger work if the whole job was a time and material job?

A. I did not refuse to put in the cylinder for him. He could have the cylinder or anything else he wanted on the ship; but [2096—2008] he tried, his proposition was to take in place of the work on the valve as specified—he had a list of work for doing this other job, one offsetting the other.

Q. If it was a time and material job that would have been an advantageous proceeding for you, would it not? A. Nothing wrong with it at all—

Q. But if it was a contract—

A. (Intg.) —to have done one job and stopped the other.

Q. If it was a contract job it would not have been an advantageous proceeding for you?

Mr. FRANK.—Now, just one moment. It is time for me to interfere in this matter, because you are wasting time. The witness has not testified that this job, according to the specifications, was not to be done for a given price. He said it was an outside price if it was done strictly according to the specifications. Now, you are using the word “contract,” which might have a double meaning, as though it meant a regularly executed written contract. He told you he rejected the bid, and that this was an outside price for doing it according to the specifications strictly, and if you changed the specifications he was not bound by that. What is the use of arguing as to the double meaning of the word “contract”

(Testimony of Harry Paul Gray.)

with the witness? You are trying to prove by this witness he had a contract because he refused to substitute one element of the specifications for another under the agreement which he has testified to. I do not care whether you call it a contract or what you call it, as long as you don't use a double meaning.

Mr. McCLANAHAN.—We will get back to the contract now. Read the question.

(Last question repeated by the Reporter.) [2097—2009]

A. If it was a contract, no, of course it would not be an advantageous proceeding under those conditions.

Q. All right. And this testimony that you have given with reference to the balance-cylinder would apply, would it not, Mr. Gray, to all of Mr. Klitgaard's requests for exchanging the work?

A. Oh, yes, the same thing right straight through; yes.

Q. When these requests were made, was the subject of whether you were working under a contract or not discussed between you and Mr. Klitgaard?

A. No, it was never discussed.

Q. Never discussed at all. A. No.

Q. Did you ever know that Klitgaard understood that he was working under a contract or that you were working under a contract?

A. I don't know what was in Klitgaard's mind; I could not tell you.

Q. Nothing that he ever said conveyed that impression? A. No.

(Testimony of Harry Paul Gray.)

Q. These specifications that were originally annexed to your bid and which finally passed into the office of your company, were then turned into the shop, were they not, or copies of them?

A. Yes, they would be.

Q. And the work was commenced under them?

A. Yes.

Q. Do you know whether those specifications were changed in your shop until the vessel was released by you and turned over to the Matson Navigation Company?

Mr. FRANK.—What specifications?

The WITNESS.—Which specifications,—the originals?

Mr. McCLANAHAN.—Q. The ones just testified to, copies of which were turned into the shop.

A. You mean the copies of the originals that were turned into the shop and retained by the shop?
[2098—2010]

Q. By the employees in the shop, the operators?

A. I don't know whether they were retained by them, or not, after the job was finished.

Q. I do not mean that. Were they not retained until the job was finished?

A. They certainly would be until the job was finished.

Q. They worked under them? A. Yes.

Q. You have spoken in your cross-examination of extras; what do you mean by that expression?

A. Work that was not in this original list or de-

(Testimony of Harry Paul Gray.)

parture from this list in any way; that would be an extra.

Q. What would be the balance as distinguished from extras, in your opinion?

A. What would be the balance of this? That would be as per list of work or as per contract, if you want to put it that way—if you want to.

Mr. McCLANAHAN.—Do you admit there was a contract, Mr. Frank?

Mr. FRANK.—Yes, I admit the contract was such as the witness testifies here to, but not such as you are claiming. Whenever a man agrees to do work for another man he is making a contract with him.

Mr. McCLANAHAN.—Do you admit that there was a contract resulting from the bid of August 2d, 1909?

Mr. FRANK.—Now, do not carry the examination of me too far, or you will get into trouble.

Mr. McCLANAHAN.—Q. Mr. Gray, you have spoken of an agreement made with Captain Matson for the smokestack. Do you remember that?

A. Yes, I remember that.

Q. That was a contract, was it?

A. That was an agreement that I made with Matson on a stack.

Q. Who was present when that agreement was made? [2099—2011]

A. Well, there was Matson and I think Pete Johnson—in fact, I am almost certain he was there; Klitgaard; my recollection of it is Putzar was there too.

Q. Was Captain Saunders there?

(Testimony of Harry Paul Gray.)

A. And Saunders.

Q. Where was the contract made?

A. Over in the yard, in Williamson's office.

Q. In Williamson's office? A. Yes.

Q. That is what you testified on your direct examination? A. Yes.

Q. Where is Williamson's office?

A. Well, it is situated in the main office, at the right-hand side as you go in the door, the main office building.

Q. When you say the agreement was made there, you mean that it was consummated there, or talked over, or both?

A. Well, I was told to go ahead with the stack.

Q. Had you, prior to that, had any discussion on the ship about it?

A. No, I never discussed it with him on the ship.

Q. With him; you mean Captain Matson?

A. Yes.

Q. Are you as clear in your recollection of the smokestack contract as you are in your recollection of other matters that you have testified to positively?

A. I am pretty clear on that.

Q. You remember distinctly that Captain Matson made the contract with you in Williamson's office?

A. Yes.

Q. Had you, at the time of making this agreement, made an examination of the stack?

A. No, I did not examine it.

Q. How were you enabled to make a bid without examining it?

(Testimony of Harry Paul Gray.)

A. I did not make the bid. Christy gave me the bid on a slip of paper. He had figured it up.

Q. Christy was the man who examined it?

A. Yes.

Q. Was Christy there?

A. No. He told me that was the price [2100—
2012] I would have to get for the stack.

Q. Did it include the installation of the stack?

A. It included the removing of the old one and putting the new one back.

Q. Does your bill correctly represent what the charge of \$900 is for? I refer you to Schedule 9 of the bill, "to construction of new smokestack, removing old and installing new."

A. Yes, that item is right; that is what I calculated on.

Q. \$900. A. Yes.

Q. What do you mean by "installation of a new stack," the term used in your bill?

A. Taking a stack and putting it in the ship on the landing for it, putting back the old stays, and old umbrella, and also the old supports, whatever they consist of.

Q. In other words, the installation has to have supports included in it.

A. These supports were in there before. It has to have them; yes.

Q. The same kind of supports?

Mr. FRANK.—He did not say that.

Mr. McCLANAHAN.—Q. I do not mean the same supports, but the same kind.

(Testimony of Harry Paul Gray.)

A. We were using what was in there—whatever was in there would have to be put back, in the shape of supports.

Q. Is the bill properly made out, as you have read it?

A. I did not make this arrangement; I do not know if that was done by somebody over there.

Q. Does the bill properly convey your idea of the contract? A. Yes, it does—you mean the \$900?

Q. Yes.

A. That is all I had in mind at the time I made that arrangement with Matson; that is all anybody had in mind. [2101—2013]

Q. It was not your bid at all, as I understand it.

A. No.

Q. Christy's?

A. But it had been described to me what they were going to supply, and that the old bands were to be removed from the stack, from the old stack, and put on the new one; and that was done. Mention of all of this other work was never thought of at the time.

(An adjournment was here taken until to-morrow, Friday, May 3d, 1912, at 10 A. M.) [2102—2014]

Friday, May 3, 1912.

HARRY PAUL GRAY, cross-examination resumed:

Mr. McCLANAHAN.—Q. Mr. Gray, where did the understanding about the tank-top take place?

A. Do you mean the original work as contemplated?

Q. Well, I understand that you submitted a bid.

(Testimony of Harry Paul Gray.)

A. Yes.

Q. And that bid was rejected and you had some other understanding about it.

A. Well, Matson turned that down in his office.

Q. Turned the bid down in his office? A. Yes.

Q. Now, where did you have the understanding that followed the rejection of the bid—was it there or on the ship, or where?

A. That is the only understanding I had, that he was not satisfied with it, that he thought it was too high, and he was going to save money by putting a timekeeper on the job.

Q. There was some understanding under which the work was allowed to be done by you; you went ahead and did the work on the tank-top? A. Yes.

Q. Where was that understanding that you should do that work made?

A. It was made in Matson's office.

Q. In his office? A. Yes.

Q. At the time the bid was rejected?

A. At the time he turned it down.

Q. Who were present?

A. I do not think there was anyone but Matson and myself.

Q. What time was that, Mr. Gray? Try and place the time with reference to the time the smokestack contract was entered into.

A. Well, it must have been some time before the smokestack contract was entered into, because Matson went away on the following [2103—2015] day

(Testimony of Harry Paul Gray.)

after we had made the arrangement for the smoke-stack.

Q. So it was before that?

A. It must have been; yes.

Q. You are not quite clear as to when it was?

A. I could not state that positively, no.

Q. You are clear that it was in his office?

A. Yes, it was in his office.

Q. Between you and he that the talk was at that time? A. Yes.

Q. Mr. Gray, the itemization of the work in Schedule One of your libel referring to the tank-top is not accurately stated, is it?

A. Is this the beginning of the itemization?

Q. Yes, that is the first bid.

Mr. FRANK.—On that copy, Mr. Gray, the lead pencil marks and interlineations are no part of it. You do not need to regard them at all.

A. You had a sketch here.

Mr. McCLANAHAN.—Q. Do you wish to see that sketch?

A. No, it is not necessary. I could make one.

Q. Will you answer my question then?

A. This calls for renewed number four tank-tops on port side. That was partially renewed; that is, not wholly renewed.

Q. That is in accordance with the testimony?

A. Yes, it was not wholly renewed. In the original bid we made it called for the renewal where it was bulged.

Q. I call your attention to Christy's Exhibit "C,"

(Testimony of Harry Paul Gray.)

which is the list of the specification work, which you have identified. A. Yes.

Q. I will ask you why the work under Item 2 was not done, if you know.

A. Yes, I know why it was not done; because it was unnecessary.

Q. That is what Mr. Klitgaard says. I wanted to confirm that. A. Yes. [2104—2016]

Q. I hand you Gardner's Exhibit No. 1, and ask you, Mr. Gray, if the comment found on that exhibit under Item No. 4 is a correct statement, correct general statement.

A. Can I compare that with the other?

Q. Sure, you can compare it with everything, Mr. Gray.

A. That is practically correct. As near as I can see, it is. Of course, this should be compared with the statement in what you call the libel—I don't know how that reads; but this sounds correct. I do not see anything wrong with it.

Q. My question, Mr. Gray, referred to this notation here at the end of this. I asked you if that was a fair statement of what was done.

Mr. FRANK.—Including the parenthetical sentence there?

The WITNESS.—Without going into it in detail—

Mr. FRANK.—Just one moment, Mr. Gray.

Mr. McCLANAHAN.—Q. I do not want to bind you to this statement, metal only to be paid for 92 pounds in each—I do not want to bind you to that;

(Testimony of Harry Paul Gray.)

aside from that, is that a fair statement?

A. Yes, as far as I can see, it is.

Q. Now, Mr. Gray, I call your attention to the comment found on Gardner's Exhibit No. 1, under Item 5, and I ask you if that is a fair statement of that work.

Mr. FRANK.—I do not understand, Mr. McClanahan, how that has anything to do, the examination you are making now, with anything that was brought out on the direct examination of this witness. Of course, if you are going to start over anew, you will compel me to start anew hereafter, and I don't know where we will end. I make my objection upon that ground.

A. Well, I can say that the amount of metal here, I could not [2105—2017] tell you whether it was correct—do you want me to state that that was correct?

Mr. McCLANAHAN.—Q. Oh, no, I do not want that.

Mr. FRANK.—He don't want you to state as to that.

The WITNESS.—The amount of metal here is too small.

Mr. McCLANAHAN.—Q. Aside from that, is it a fair statement?

A. Outside of this recompense business, I don't know anything about that.

Q. Aside from the recompense?

A. And the amount of metal—that about covers the work that was done.

(Testimony of Harry Paul Gray.)

Q. That is the idea. That Item No. 7 of the same exhibit, will you give your opinion with regard to the same notation found under that—is that a fair statement of the work that was to be done?

A. Well, I can say this: this is a specification here that was to be done, and this is what was done to answer, in lieu of what it was intended to do.

Q. So that the notation under the original specification is a fair statement of the work which was actually done?

A. That was actually done; that covers the work that was done, that statement there—it says: “Instead of column”—that statement is correct.

Q. Turn to No. 9 and give me your comment on the statement under Item 9 as to whether that is a fair statement of what was done under No. 9.

A. Do I have to check this statement up with this one (pointing)?

Q. No, you do not.

A. This No. 9 with this No. 9 here?

Mr. McCLANAHAN.—He can assume that that is the same, can he not, Mr. Frank?

Mr. FRANK.—Yes.

A. This statement No. 9 is the same as this.
[2106—2018]

Mr. FRANK.—Q. What he is asking you now, as I understand it, is whether the note underneath No. 9 is a fair statement of what was done under it?

A. I had better answer one of these at a time.

(Testimony of Harry Paul Gray.)

Q. As to whether it is a practical statement of the specification?

Mr. McCLANAHAN.—Q. Is it a fair statement?

A. As to the crank-shaft being removed it was not taken out. It was raised up into the housing and checked from there. “A cast-iron cylinder was made and bored out to size of the shaft bearing”; that is a common practice.

Q. Is that correct?

A. Yes. “With the aid of this the bearings, four in number, were filed up and oilstoned.”

Q. Is that correct?

A. That is correct. “Other work completed as specified; thrust-shaft and one length intermediate shaft being removed to shop,”—that is substantially correct; yes.

Q. I call your attention to Item No. 14 of Gardner’s Exhibit No. 1 and ask you if the notation is substantially correct.

A. Yes—I will have to confess I don’t know much about it. That was a ship fitting job, and was out of my line.

Q. Whose line would that be in, Mr. Gray, Mr. Williamson’s?

A. Mr. Taylor would know more about it than I, Taylor or Christy. Christy attends to a great deal of that detail.

Q. Would Williamson have anything to do with it?

A. I doubt it very much.

Q. I will show you Schedule 4 of your libel and ask you if you know anything about the parties that

(Testimony of Harry Paul Gray.)

agreed to the several prices fixed on that schedule. Take the first one, the \$330; do you know who agreed to that? [2107—2019]

Mr. FRANK.—Q. What is the use of going on with that? He said all that was auxiliary to the smokestack.

A. That is the spring bearings. That is those spring bearings—there were how many of them? \$60 a piece, I think, they are.

Mr. McCLANAHAN.—Q. That is not my question.

A. Yes, you were talking about the price.

Q. Who made that contract?

A. I made that arrangement with Klitgaard for those spring bearings.

Q. Passing to the second one of \$146.88; who made that agreement? Of course, if you do not know, I do not want you to tax your memory.

A. I could not tell you. I think that this one, the first, I talked over with Klitgaard.

Q. The third one; do you remember who made that one? A. No, I could not tell you.

Q. The fourth one of 50—the second \$50; do you know who made that one?

A. I believe that was Christy's and this is Christy's.

Q. By this last one you mean the \$40? A. Yes.

Q. That is, those two last ones were made by Christy? A. Yes, that was in his line.

Q. That is the basis of your assumption?

A. Yes.

(Testimony of Harry Paul Gray.)

Q. Coming to Schedule 5, "Repairs to ladders, floor plate and gratings in engine-room as per agreement, \$190." Who made that agreement?

A. That is out of my line, too, this structural work of the ship.

Q. So you don't know who did that? A. No.

Q. Turn, now, to Schedule No. 6, I ask you who made that agreement, if you know.

A. I could not tell you.

Q. And Schedule No. 7; who made that agreement?

A. I made [2108—2020] that agreement.

Q. "Made and install one brake rig on reversing shaft as agreed, 140." Who did you make that with?

A. Mr. Putzar and Klitgaard and Williamson was there, and I was.

Q. Who did the figuring on it—you and Williamson? A. Probably we did it together.

Q. Turn to Schedule No. 8, the new bearing-boxes, \$1350; who made that?

A. I made that with Captain Matson.

Q. I believe you said that those bearings were understood to be in the rough?

A. Rough finish. There was nothing else to do but the rough finishing. I could not figure them until I got the gauges of the housings after they were chipped out.

Q. Of course it was contemplated that they should be finished when the contract was let?

A. Naturally they would have to be finished. All I could supply under this contract, under this arrangement here, would be in the rough—rough finish;

(Testimony of Harry Paul Gray.)

they were rough finished.

Q. Did Captain Matson know that?

A. I undoubtedly explained it to him at the time, Mr. McClanahan; there was nothing else to do, you could not make it any other way.

Q. You expected to install them, didn't you?

A. We expected to install them.

Q. Did you have any understanding about the installation in the event of your not procuring the job?

A. No.

Q. That is the main job?

A. No. If you will look back here, I was looking at this a moment ago, you will find here, you see here—

Q. (Intg.) You are pointing now to Item 9 of the original specifications?

A. "All main bearings in the lathe, file [2109—2021] housings where worn and bed to same new shells, these shells supplied by ship"—those are the shells.

Q. That refers to Schedule S?

A. Yes, and I could not file them until the housings were filed.

Q. Did you have any understanding in case you should not secure the specification job with reference to the main bearings which you had contracted for?

A. Well, the only understanding I had was that they would be as near to the size as I had dimensions for. I went down with a rule and measured them up, or a draftsman did; of course, they would be machined to that as close as possible.

(Testimony of Harry Paul Gray.)

Q. Didn't that price of yours include the installation of those?

A. No; it is impossible to do that. I could not figure on installation at that time.

Q. You were simply to furnish it in the rough?

A. Not rough castings; rough finished.

Q. What would be the difference between rough castings and rough finished?

A. Well, you would have to go around these bearings with a planer; there is four sides to go around there, and there are eight half brasses.

Q. That is, to take off the rough you would have to do that? A. Just rough finish them.

Q. And the installation would include what in addition to that? The fitting to the housing?

A. The fitting to the housings.

Q. That is all, isn't it?

A. That would be—let me see. Of course they had to be bored.

Q. That is, as a part of the installation?

A. As a part of this item here, you see, because it calls for it here.

Q. As a part of the installation?

A. As it calls for it here, in this item. [2110—2022]

Q. By "this item" you refer to Item 9 of the original specifications?

A. Yes, you see—"After shells are properly bedded, they are to be bored out in place in perfect alignment"; that is the boring out of the babbitt.

Q. That is a part of the installation, is it?

(Testimony of Harry Paul Gray.)

A. That would be a part of the Item 9 in the specifications.

Q. And you cannot remember that there was any understanding with Captain Matson or any one else representing him in the event you did not secure the main job?

A. That I was to go aboard the ship to fit them; is that what you mean? That I was to take these brasses and go aboard the ship and fit them; is that what you mean?

Q. No.

A. That is the only understanding that could be.

Q. What I mean is this: Was there any understanding that if you did not get the main job, you having already got the main bearing job, was there any understanding that hinged upon your getting or somebody else getting the main job?

A. Well, all that I would have to do would be to supply him the bearings rough finished.

Q. Was that the understanding?

A. That is the understanding.

Q. That is, you would supply the other fellow that was to do the main job?

A. I would supply him the main bearings rough at that time, because he gave me this order when he discovered the brasses were split and loose in the housings. That was, I should judge, three or four months preceding—

Q. (Intg.) The main job?

A. The main job; so that there would be no delay when they went ahead with the main job.

(Testimony of Harry Paul Gray.)

Q. So you did have an understanding then that if somebody else got the main job, you were simply to turn over to them these main bearings?

A. Yes. [2111—2023]

Q. Turn them over to the successful party?

A. Yes.

Q. Now, I call your attention to Schedule 9 of the Libel and ask you if you have any knowledge of who agreed to the enlargement of the casing around the smokestack? A. That was arranged with Christy.

Q. Christy and who?

A. Well, I could not tell you who, beyond that—but undoubtedly it was Klitgaard and Christy, it must have been.

Q. Do you know that, or do you simply assume that?

A. Well, they could not let a thing like that go without consulting Christy. I can say positively he must have had; I know I did not do it.

Mr. FRANK.—What is the use of going into that thing, when your testimony of Mr. Klitgaard is undisputed as to the manner that contract was entered into? He told you the whole business himself. You are simply trying to swell the record.

Mr. McCLANAHAN.—Will you admit, Mr. Frank, that his testimony will be undisputed, will remain undisputed?

Mr. FRANK.—Admit what?

Mr. McCLANAHAN.—That Mr. Klitgaard's testimony will remain undisputed as to who entered into these several jobs that I am going into.

(Testimony of Harry Paul Gray.)

Mr. FRANK.—Unless there is something in it that I do not know anything about. Now that you make the suggestion, I will look into it.

Mr. McCLANAHAN.—Q. As I understand you, Mr. Gray, the matter of enlarging the casings and the manner of making the new top for breeching, as shown by Schedule 9, was probably made by Mr. Christy?

A. It was not done by me, and must have been made by him, because he was the only one that had [2112—2024] the power to do it.

Q. I will show you now Schedule No. 10, and ask you who the parties to that agreement were?

A. I was party to that agreement.

Q. You and who else?

A. Well, for us, I think I was the only one, quite positive. Mr. Hurley was there; and it was arranged with Klitgaard and Saunders.

Q. I suppose, Mr. Gray, that there are times when neither you nor Mr. Christy are available to make minor contracts for changes that have to be made perhaps immediately. Who has the power under such circumstances to make them on behalf of the United Engineering Works?

A. That is not a power that you could give to anybody else except the people that are interested.

Q. Let me suggest that it might be in this way, a contract might be made in your absence, submitted to you afterwards and ratified. Is that true?

A. There was no one working for us that would dare to do it.

(Testimony of Harry Paul Gray.)

Q. No one working for you that would dare to do it? A. No.

Q. That is, even Mr. Williamson would not dare to make any change in a contract that you had made, or make a new contract? A. No.

Q. Without first consulting you? A. No.

Q. He has made them, though, has he not, and afterwards had them confirmed by you?

A. He would make a price and have them confirmed by the shop, by Christy or myself.

Q. He was a man that was capable of figuring a job, was he not?

A. Oh, yes, he is a very capable man.

Q. A man you relied on a good deal, did you not, in figuring? A. He was thoroughly reliable.
[2113—2025]

Q. You would consult with him sometimes in making figures? A. Certainly.

Q. Your attention was called in your direct examination to Item 120 of the 140-item list of Mr. Kinsman's: "Made and fitted straps for hanging spare horseshoe and two adjusting nut wrenches."

A. Yes.

Q. You were told that Mr. Klitgaard had said that was a part of a former thrust contract. Do you remember that?

A. Well, we worked on that thrust so much and so often that it is pretty hard to connect it up with the thrust contract.

Q. Do you know of any thrust contract?

A. Oh, I made several figures on that thrust, re-

(Testimony of Harry Paul Gray.)

built it several times.

Q. Under contract?

A. By giving a price, yes.

Q. Have you got—

A. (Intg.) The records of it?

Q. Yes.

A. No, it was probably done with a verbal arrangement. She had a very bad thrust in her, that ship, and we never did get it right until the last horse-shoes were put into it.

Q. Now, Mr. Gray, can you conscientiously say that that item would not belong to your last contract for the thrust?

A. Can conscientiously say that, yes, because, why should we provide wrenches with a contract? If we make wrenches for a ship, especially a repair job, we charge on them.

Q. You think Mr. Klitgaard was perfectly sincere in saying that that belonged to a former thrust contract, don't you?

Mr. FRANK.—Oh, I submit that that is not a question for this witness, to judge of Mr. Klitgaard's sincerity. That is a matter for the Court to judge of. How can he know whether he was sincere or not? [2114—2026]

Mr. McCLANAHAN.—Answer the question.

(The last question repeated by the Reporter.)

A. If a man provides extra horseshoes he gets paid for strapping them up, strapping it to the ship, the same as if you provide a crank-shaft strap, you get paid for strapping it up to the ship.

(Testimony of Harry Paul Gray.)

Q. Mr. Gray, from your knowledge and acquaintantship with Mr. Klitgaard, you know that he would not make that statement without believing it, don't you?

Mr. FRANK.—I object to that as immaterial and irrelevant, and incompetent; it is not the proper method of examining him, or proper method of building up Mr. Klitgaard's integrity for truth and veracity.

A. Am I to answer this question?

Mr. McCLANAHAN.—Yes, if you please.

A. You want my opinion of whether Mr. Klitgaard—

Q. (Intg.) Was sincere in making—

A. (Intg.) Was sincere in making the assertion?

Q. Yes.

A. That is a pretty hard thing to answer. How could I tell what was in Mr. Klitgaard's mind?

Q. Now, let me put it in another way. Don't you believe that Mr. Klitgaard was just as friendly to you as he was to the Matson Navigation Company when he made that statement, and don't you believe that he was an impartial witness in making that statement?

Mr. FRANK.—We object to that also. You might add to that, whether he was paid by you for making that.

Mr. McCLANAHAN.—Q. And let me add to the question: haven't you such knowledge of Mr. Klitgaard through your acquaintance with him that would enable you to answer that question?

(Testimony of Harry Paul Gray.)

A. Do I have to answer that question? [2115—2027]

Mr. FRANK.—Yes, Mr. Gray, and I do not think you are bound by any delicacy for anybody else's character or feeling. If they put the matter up to you in that way, answer it according to your honest dictates, and do not try to save anybody.

Mr. McCLANAHAN.—That is entirely uncalled for, Mr. Frank.

Mr. FRANK.—No, it is not.

Mr. McCLANAHAN.—I do not believe that even the Court would instruct the witness in that way.

Mr. FRANK.—The entire conduct of the witness shows that he is trying to protect Mr. Klitgaard as much as he can.

Mr. McCLANAHAN.—That is a remarkable statement. The record does not show anything of the kind.

Mr. FRANK.—Q. Go on, Mr. Gray.

Mr. McCLANAHAN.—Q. Why do you hesitate so long, Mr. Gray?

A. Why, I don't know why a thing of that kind should be passed up to me, what Mr. Klitgaard thought, or what was in his mind, or whether he was working for me, or working for the Matson Navigation Company.

Q. That is not my question, Mr. Gray.

A. The Matson Navigation Company, he was in their employ, it is his duty to do the best he could by them and get as much from the United Engineering Works as he possibly could get.

(Testimony of Harry Paul Gray.)

Q. That is not my question.

A. (Contg.) And that is undoubtedly what he did.

Q. That is not my question, Mr. Gray. Broadly stated, my question is, don't you think Mr. Klitgaard was an impartial witness in making that statement?

A. Mr. Klitgaard has always been more or less of an erratic man; he will tell you one thing to-day and something else to-morrow.

Q. That is not my question, Mr. Gray. [2116—2028]

Mr. FRANK.—Just go on and finish your answer, Mr. Gray.

A. Why shouldn't it bear on these things?

Mr. McCLANAHAN.—Q. Does it bear on it, in your opinion?

A. I would say yes, because he had forgotten a great many other statements that he had made before.

Q. Then your testimony is that you believe that he was partial in making that statement?

A. To the Matson Navigation Company, he should be partial.

Q. Why should he be partial?

A. For the reason that he was working for the Matson Navigation Company when this work went on, and it was his duty to be partial to them, and get as much from the United Engineering Works as he possibly could.

Q. You know he was not working for the Matson Navigation Company when he made that statement,

(Testimony of Harry Paul Gray.)

referring to Item 120?

A. I don't know about that.

A. He told me that he got \$750 for the work that he did for them at that time. That is what he told me.

Mr. FRANK.—Q. What work do you mean?

A. For the—

Mr. McCLANAHAN.—(Intg.) You can bring that out on redirect examination, Mr. Frank. Do not interrupt my examination.

A. For the witness end of it, or looking up these possibilities, or referring to the figuring up the cost of the job.

Mr. McCLANAHAN.—Q. What else did he tell you about the \$750? A. That is about all.

Q. Did you think he was highly paid or underpaid?

A. Well, I should not think that was very highly paid.

Q. You think he was worth that, do you?

A. I should say so; yes.

Q. Now, Mr. Gray, you and Mr. Klitgaard seemed to have had [2117—2029] a good many conferences about this work after the job was finished. Is that correct? A. Well, naturally we would have.

Q. You are the man that asked Mr. Klitgaard for a copy of his report to the Matson Navigation Company, are you not?

A. I think Mr. Klitgaard volunteered that report. I have no recollection of asking him for it; he told me

(Testimony of Harry Paul Gray.)

at the time he gave one to the Matson Navigation Company.

Q. Suppose he should say under oath, Mr. Gray, that you had asked him for the report, you would not want to cast any doubt on that statement in the absence of your clouded memory about the matter?

Mr. FRANK.—I object to that as an improper question put to the witness, as immaterial, irrelevant and incompetent, and not a proper way to examine the witness. It is immaterial what he would want to say about it.

Mr. McCLANAHAN.—Q. In other words, Mr. Gray, Mr. Klitgaard swears that you did—you have stated that you are not certain.

A. Has he sworn that way?

Mr. FRANK.—I would like you to show me where he said that.

Mr. McCLANAHAN.—Q. You have stated that you are not certain. Under those circumstances, you would not doubt Mr. Klitgaard's correctness on this matter?

A. He volunteered the report to me, the same as he did to his employers.

Q. Why, *he* should he be reporting to you, can you tell?

A. That was a natural sequence of things, that we should know as much about the job as the owners. We have got to know what the engineers' ideas of the work done was; otherwise you never could come to any kind of an arrangement, the same as a time-keeper; the timekeeper must have his time checked

(Testimony of Harry Paul Gray.)

[2118—2030] up every day, and this is a parallel set of conditions.

Q. What did you do, Mr. Gray, with these reports that you say you ought to receive from the engineer in charge of the owner's work?

A. What do we do with them?

Q. Yes. A. Put them in the safe.

Q. Is that all?

A. All I have any use of them for,—we put them in there for our own protection.

Q. Do you know what was done in this particular case with Mr. Klitgaard's report?

A. It was handed to me, and I handed it to the president of the United Engineering Works.

Q. Is that all?

A. That is all I did with it.

Q. Do you know whether it was used in making up the bill?

A. I do not make the bills for the United Engineering Works.

Q. That is not my question.

A. I don't know anything about that.

Q. You don't know whether it was used or not?

A. No, I do not.

Q. Why did you ask Mr. Klitgaard to sign each page of that report?

A. I did not ask him to sign each page.

Q. Did he do it voluntarily?

A. He must have done it voluntarily, yes. I never asked him.

Q. Did you see him sign it?

(Testimony of Harry Paul Gray.)

A. No, I did not see him sign it.

Q. It came to you signed as it is?

A. He brought it to me signed.

Q. You know each page was signed, do you?

A. Well, I could not swear to that.

Q. Have you looked at it recently?

A. Let me see. I know his signature, if you have the paper here.

Q. Answer the question.

A. Do I know, you say?

Q. Haven't you looked at it recently, I say?

A. Well, I have [2119—2031] not looked at it for a long, long time.

Q. How long?

A. Why, since three or four months, since this thing was stopped.

Q. What, Mr. Gray, led to a discussion with Mr. Klitgaard of the fruits of his labor being performed by him for the Matson Navigation Company?

A. What led me?

Q. Yes, to a discussion with him of the fruits of his labor being performed for the Matson Navigation Company. A. You mean after?

Q. I mean with reference to this \$750 charge that he was making?

A. I did not have any discussion with him regarding it.

Q. Why, you told us in your direct examination that he told you what his figures amounted to.

A. I do not think I understand what you are driving at.

(Testimony of Harry Paul Gray.)

Mr. FRANK.—He is asking you about the \$23,000.

Mr. McCLANAHAN.—I am perfectly capable of conducting my examination, Mr. Frank. Please do not interrupt me.

The WITNESS.—You are perfectly capable, all right. I do not understand it.

Mr. McCLANAHAN.—Q. I will make it clear to you, except that I do not need Mr. Frank's assistance. I refer to your testimony where you said that Mr. Klitgaard told you that his estimate which he had been employed to make on this work ran between \$22,000 and \$23,000. Now, I want to ask you the question, what led to that conversation?

A. Well he was working over at the Berkeley Fertilizer Works. He came voluntarily to the shop and brought up the question of the job himself.

Q. In what way?

A. He said that he was making an estimate for the Matson Navigation Company on the job.

Q. Was making it? A. Yes. [2120—2032]

Q. Was making it or had made it?

A. Or had made it.

Q. And what else happened?

A. That is about all. I took him into the automobile, I believe, and we went out to China Basin, or something of that kind—I was pretty busy at the time—and we rode back. That is about the limit of what happened.

Q. Then in that ride you and he discussed this estimate that he had made?

A. We talked it out a great many times.

(Testimony of Harry Paul Gray.)

Q. And he told you in that ride that his estimate was between \$22,000 and \$23,000?

A. \$23,000—he said he did not consider any over-time.

Q. What comment did you have to make on that?

A. I did not make any comment on it at all.

Q. As a matter of fact, Mr. Gray, you have felt all along that your bill was high, have you not?

A. I felt that the bill was just under the conditions.

Q. You have felt that it was high, have you not?

A. For the length of time the work was done in, the bill is not too high, the amount of work that was done in that period of time.

Q. What trouble did you refer to when you cautioned Klitgaard and Saunders about this work?

A. Well, the trouble I referred to was this: a great many years ago I had done—

Q. (Intg.) Now, I beg your pardon, I am not referring to that. You are referring now to the former controversy with the Matson Navigation Company?

A. Yes, that is what I referred to.

Q. That is, you had that in mind?

A. I had that in mind, yes.

Q. Between the time of this controversy that you have referred to, this previous controversy, and the time of doing the work which is now being threshed out in this suit, you had done a [2121—2033] great deal of work for the Matson Navigation Company, had you not? A. Yes.

Q. And your relations were very pleasant?

A. Oh, yes.

(Testimony of Harry Paul Gray.)

Q. So that that old matter had been wiped off the boards?

A. Well, there was a vast difference between a \$2,000 bill and a \$30,000 or \$40,000 bill, and the way this was piling up, it was getting to be a pretty serious proposition, running into a great deal of money, and while there might not be any feeling toward one or two thousand dollar bills, when you get around to four or five times that, it is a vast amount of difference.

Q. When you first saw this bill, Mr. Gray, you were really surprised yourself at the size of it, were you not—not imputing to you any doubt as to its correctness, you were surprised that it had run so high?

A. Well, I had hoped that it would not run as high as that.

Q. In regard to the circulating-pump contract, I call your attention to Saunder's Exhibit 3, which you have said is a copy of your bid for that work, and ask you if there were any other specifications other than those contained in that exhibit.

A. Well, this item here of \$1,350, together with the removal of the valve chamber on this specification, covered the circulating contract. You see, this valve chamber was to be removed and the plate substituted to take the discharge of the circulating-pump.

Q. So, then, the specifications for the circulating-pump as contained in Saunders' Exhibit 3 must be, in your opinion, supplemented by the first requirement of Item 11 of the original specifications?

A. That is why it was finally decided to put it back,

(Testimony of Harry Paul Gray.)

to couple it up.

Q. Am I correct?

A. Those two items there, this item here [2122—2034] and that item there would cover the circulating-pump job.

Q. By “that item there” and “this item here” you refer to Saunders’ Exhibit 3, and the first provision of Item 11 of the original specifications? A. Yes.

Q. Where is Mr. Klitgaard now, Mr. Gray?

A. I don’t know. I heard he was in Philadelphia somewhere, running out of Philadelphia.

Q. You know he is not in town?

A. No, he is not here.

Q. What percentage of nuts are turned out in shop that have English threads?

A. Well, it is only on special work.

Q. Only on special work? A. Yes.

Q. You do it by hand?

A. You would cut the thread normally, cut the thread at an angle, a right angle, then take a Whitworth die and run over it and then would run the top and bottom.

Q. How many dies have you?

A. Well, I suppose we have up to an inch and a quarter; probably from $\frac{3}{8}$ ths to an inch and a quarter.

Q. Did you have any dies for the thread which was used on Item No. 99 of the 140 item specification?

A. Well, you would not require them; you know you can make the threads without the dies.

Q. You did not have any dies for those?

(Testimony of Harry Paul Gray.)

A. I could not tell you that, whether they had that size or not; that is pretty big; possibly would be an inch and a half.

Q. If you did not have the die you would have to do it on a lathe?

A. You would do it with a lathe, too.

Q. On a lathe, too.

A. You see there is very little difference between the two threads; the top of one is rounded and the angle is slightly different. On the American thread the top is square and the bottom. [2123—2035]

Q. Of course, the work of making English threads is more expensive, is it not?

A. There would be some slight difference, but on a job like that you could not figure it.

Q. I understand that you did not know positively about this Item No. 91, what kind of a thread was used. You have simply stated that it was possible for to make the English threads? A. Yes.

Q. Now, you spoke of using the bending slab. Do you remember your testimony on that subject?

A. No, I cannot say that I do.

Q. You know the bending slab on the job was required to be used on the smokestack, do you not?

A. It would not have been very much, I don't think.

Q. How many hours do you suppose it would have been?

A. You have got me; I don't know.

Q. Can't you figure that out?

A. That, Mr. McClanahan, is out of my province.

(Testimony of Harry Paul Gray.)

I do not estimate any structural work on a ship.

Q. Well, Mr. Frank did not think it was out of your province when he began to ask about it.

A. That may be; he is not supposed to know.

Q. It is out of your province?

A. I do not do the estimating on the structural work of a vessel.

Q. So that you now don't know what use was made of the bending slab on that ship so as to be in any way accurate?

A. No, I do not. I do not pretend to know on that or any other job. We have men in our employ that give their time and attention to that branch of the business.

Q. That disposes of your evidence on direct examination?

A. All of my energies are expended on the machinery and boilers of a vessel. [2124—2036]

Q. Now, Mr. Gray, I understand with reference to Item 103 of the 140-item list, that you have made the statement that a portion of that turning engine was broken when the "Hilonian" went over there?

A. Yes.

Q. Now, in its broken condition, you used it, did you not, all through the work? A. Yes.

Q. So it was not so bad but what you could use it?

A. It was hammering and pounding so that you could hear it all over the shop every time you used it.

Q. You used it and found it effective?

A. We used it, yes. A poor makeshift, anyway. It was made of an old cargo winch that we took off

(Testimony of Harry Paul Gray.)

the "Hilonian's" deck.

Q. Now, Mr. Gray, you have spoken of doing some work on the new wheel that was furnished the ship by the Union Iron Works. Are you speaking from actual knowledge or hearsay? A. Hearsay.

Q. You don't know when that work was done, then?

A. Only what they told me about it, whatever was done.

Q. Will you please tell me what they told you?

A. They told me that the gauge did not fit the wheel the way it came to the yard in the taper, and they had to file the taper to make our gauge fit. We had a gauge of the "Hilonian."

Q. I am a little dense on this. I would like to have you explain to a man who knows absolutely about it what you mean.

A. Well, you know, if—if you will give me a piece of paper I will make a sketch of it and make it a little clearer.

Q. I know what a wheel is, but I do not know what the gauge's application is, as you have testified.

A. (After drawing sketch.) This would represent the hub of the wheel.

Mr. FRANK.—The whole thing. That is the hub, you say? [2125—2037]

The WITNESS.—Now, we make a sheet-iron gauge which is represented by this line here, and we file that gauge in.

Mr. FRANK.—Mark that line A B.

Mr. McCLANAHAN.—Wait a minute. I will

(Testimony of Harry Paul Gray.)

make it perfectly clear, if you will let me conduct my examination.

Q. Make your general explanation, and we will go over it.

A. This is the hub on this outline here; suppose we double that, like that, make a heavy line. This is the gauge (pointing); sheet iron. That, probably, is No. 10 steel. You fit this gauge down, and allow a margin here, you see, a distance here, so the gauge won't bottom, and you see the shaft proper would be like an extension of that gauge. That is where your shaft would go. These you keep in stock, these being marked for the steamers named, and when it is made, and that is kept in the toolroom (illustrating).

Q. By this, you mean the gauge?

A. Yes, in the event of getting an order for the wheel, you do not have to go to the ship to get sizes. We have got the statement, that is, the gauge, we had taken for the "Hilonian" years ago—we had that gauge and we tried it into the new wheel.

Q. Before the vessel went on the dock.

A. That is always a precaution that is taken, because two or three times we have been caught by putting the ship on the dock and then trying the gauge and it would mean a big delay on the dock.

Q. Will you mark this out here, "shaft," and then we will have it fairly correct? A. Yes.

Mr. McCLANAHAN.—I offer this in evidence and ask that it be marked Gray's Exhibit Respondent's 1.

(Testimony of Harry Paul Gray.)

(The drawing is marked Respondent Gray's Exhibit 1.) [2126—2038]

Q. Now, this gauge, you say, was one that you had in stock. You know that? A. Oh, yes.

Q. So there was no need of taking another pattern for another gauge on the ship?

A. Not unless they ordered the gauge; they might have ordered one; it is very common practice, you know.

Q. Well, in case they ordered a gauge, then the ship would have to be in dock, would she not?

A. No, because I could make one of these. I could make a duplicate of this, and this would be all right; when they got that they would have a proper gauge.

Q. That is, you could make a duplicate from the one in the shop? A. The one I have got in stock.

Q. What would be the object in making a new one?

A. Sometimes the ship likes to carry a gauge.

Q. But for the purpose of testing this new wheel the gauge in the shop was all that was necessary?

A. All that was necessary.

Q. That is the gauge you understand was used?

A. That is the gauge, yes.

Q. That was used before the ship went on the dock?

A. Yes.

Q. And you got your information before the ship went on the dock? A. Yes.

Q. You don't know of any other work that was done on the wheel except that which you have testified to?

A. There was some talk about the feather not being

(Testimony of Harry Paul Gray.)

correct. That was talk that came to me as hearsay. I did not see it myself.

Q. That is the feather of the new wheel?

A. The feather-way of the new wheel. But that came to me second or third hand. I don't know anything much about that. [2127—2039]

Q. Do you know of any repair work on the "Hilonian's" rudder before the vessel was docked?

A. They were working on the rudder stock. They had a device for taking the side motion, the fore and aft motion out of that stock; that is up on the main deck. They were working on that before she went to the dock. It was in pretty bad condition, and they overhauled it and made a lot of cheek pieces for it.

Q. That is, before she went to the dock?

A. Yes. That rudder stock was an extension of the rudder, essentially a part of the rudder.

Redirect Examination.

Mr. FRANK.—Q. On your cross-examination, Mr. Gray, you were asked about Mr. Gardner's reputation, and you said as an engineer he had a good reputation. What, if anything, can you say regarding his reputation as an estimator?

A. I cannot afford to say anything against Mr. Gardner.

Q. Why?

A. Well, we have had—I have done a great deal of business with him, and he has always treated me right, and I don't know anything against him; I cannot say anything further than that.

Q. Well, when you say you don't know anything

(Testimony of Harry Paul Gray.)

against him, do you mean to say by that that you intend to endorse his ability as an estimator?

A. I cannot endorse anything with regard to Mr. Gardner; I never ran against him as an estimator; never figured against him.

Q. Then all you meant to say about his reputation was that he was a good mechanic; is that it?

A. He was a very skilled man.

Mr. McCLANAHAN.—I object to that as leading the witness, and not a fair statement of his evidence.
[2128—2040]

Mr. FRANK.—Q. Is it a fair statement of your evidence? Is that right?

A. He is a very skilled man; no question about that.

Q. In what respect? A. As an engineer.

Q. Well, your business relations are such with him that you do not care to discuss him?

A. I do not care to discuss him at all.

Q. Now, Mr. Gray, you were questioned about this bill and asked whether or not you considered it very large, and you said you had hoped that the bill would not run as high as that. Now, I will ask you from your knowledge of the conditions existing under which this work was done, and the time in which it was done, and the amount of the work that was done, whether you would consider the charge in that bill a fair and reasonable charge.

A. I have already made that statement. Yes, I do consider it a fair and reasonable charge under those conditions.

(Testimony of Harry Paul Gray.)

Q. With respect to the circulating-pump contract, you were asked if the Saunders' Exhibit 3 and Item 11 of the original specifications did not cover the work done upon the circulating-pump.

Mr. McCLANAHAN.—No, Mr. Frank, I must correct you there. He said that the item referred to in Saunders' Exhibit 3 and that part of Item 11 constituted the specifications for it.

Mr. FRANK.—Q. Now, I will ask you whether or not the installation of the distance piece belonged to either of those specifications.

Mr. McCLANAHAN.—I object to the question as unintelligible.

Mr. FRANK.—It may be to you.

A. You mean that strut that went underneath there to support [2129—2041] that pipe?

Q. Isn't the distance piece an intelligent description?

A. I cannot say that it is, Mr. Frank. It has a lot of meanings, a distance piece. We might use it for pipe, and it is sometimes called a dutchman, and all kinds of things.

Q. Well, all right. With your mind directed to that particular, will you state whether there was anything else not included in Saunders' Exhibit of Item 11 of the original specifications, work done upon the circulating-pump.

Mr. McCLANAHAN.—I make the same objection.

A. There was a support put underneath this bonnet here, or this plate, a support put underneath there to carry the weight of it. Is that what you

(Testimony of Harry Paul Gray.)

refer to as the distance piece—that might have been an after-consideration, and in the judgment of the engineer might have been necessary, and in my judgment might not have been necessary.

Q. Well it was put in?

A. I have to abide and do as told.

Q. I am not asking about that. All I want to know is the fact whether it was put in. A. Yes.

Q. In the answer that you gave to the question just referred to, did you mean to change in any wise your direct examination concerning the swivel or knuckle of the sea valve?

A. The change that was made there?

Mr. McCLANAHAN.—I object to that as improper direct examination.

A. (Contg.) Well, I know there was a knuckle joint made, or a swivel joint, or a universal joint made, and put on the sea valve, an extension.

Mr. FRANK.—Q. An extension?

A. Yes. There might have been a swivel, which is common practice put on the trolley, [2130—2042] over the top of the thrust.

Q. Is that also what you said on your direct examination, what has been raised, what has been raised from its former position—is that the machine?

A. The valve, the sea valve handle was taken off of its location down close to the bonnet of the sea valve, an extension then made so as to bring that handle on a line with the engine-room floor, and to get the right lead a universal or knuckle joint was made and fastened to the old stem.

(Testimony of Harry Paul Gray.)

Q. And that work, is it or is it not included in Saunders' Exhibit 3 and Item 11 of the original specifications?

A. No, that is not included in there. That is not included in there; it is entirely an after-consideration, an afterthought. I do not see why they should connect that with the circulating-engine; it was merely a convenience, that was put in there for the engineer. To be sure, the circulation takes its suction from the sea valve, but I do not see what connection that has with the circulating-engine, the circulating-pump.

Q. Do you know how long Klitgaard had been in the employ of the Matson Navigation Company before the time this work was done?

A. This work—oh, I should judge three or four years.

Q. You have spoken of the fittings to the housings, and that they had to be bored. Was there any machine work with the fitting of those housings?

A. The fitting of the main brasses you mean, to the housings?

Mr. McCLANAHAN.—That is what it means.

A. The main brasses to the housings, after a man gets his gauges of course he would plane the brasses to suit the gauge; [2131—2043] then they would be taken down and hand-fitted, filed and spotted into the housings.

Mr. FRANK.—Q. That is, they are machined, then, to size?

A. Just as close as they could possibly work on

(Testimony of Harry Paul Gray.)

a machine, and the refinement is done by hand.

Q. Now, if you will take up again a document marked Respondent's Gardner Exhibit 4, and look at the comments that you were asked whether or not were substantially correct. I will ask you whether those comments are sufficient to advise any one of the detail that was gone through in connection with the work and the changes made so as to enable him to make anything like a fair estimate of its cost.

Mr. McCLANAHAN.—I object to that as being immaterial and not proper rebuttal, and aside altogether from the question which was asked the witness in regard to those comments.

Mr. FRANK.—Is it material? I guess it was the only purpose of your question. I cannot leave that in the dark to be argued hereafter.

Q. You have all of the elements of my question in mind, Mr. Gray?

A. There is one item that is not mentioned in this here, that is the spare stem was lengthened. The understanding between Mr. McClanahan and myself was that this recompense was not to be considered.

Q. You misunderstood my question, Mr. Gray. I am referring now to the amount of work that was done in those changes and the surrounding circumstances and conditions under which they were done, and I ask you whether or not the statement in those comments is sufficient for anyone to make a fair estimate of the cost.

Mr. McCLANAHAN.—I object to the question on the ground [2132—2044] that it is not proper re-

(Testimony of Harry Paul Gray.)

buttal, not a fair statement of the question as put to the witness on cross-examination. The statement on cross-examination was whether it was a fair general statement of the work that was done.

Mr. FRANK.—Well, if you admit that you are not contending that is the basis on which you make your estimate, of course that is a different proposition.

Mr. McCLANAHAN.—I will admit that I will not go beyond my question, that it is a fair, general statement only of the work done. I have no intention to bind you or to argue that that was a detail statement of the work.

Mr. FRANK.—Or one from which a fair estimate may be made of the cost of it. That is the point I am after.

Mr. McCLANAHAN.—Well, it would necessarily follow from that; it would necessarily follow from that that you could not make an accurate or any kind of a fair statement of that work from that general statement.

The WITNESS.—That spare stem was extended, and it is not mentioned here.

Mr. FRANK.—Wait a moment. Never mind; we have come to an understanding and we will have to seek a little further to find out the purpose of that examination.

(A recess was here taken until 2 P. M.)

(At 2 P. M. an adjournment was taken until Monday, May 6, 1912, at 10 o'clock A. M.) [2133—2045]

(Testimony of Harry Paul Gray.)

Monday, May 6, 1912.

(An adjournment was here taken, at the request of Mr. Frank, until to-morrow, Tuesday, May 7th, 1912, at 10 A. M.)

Tuesday, May 7, 1912.

HARRY PAUL GRAY, redirect examination resumed:

Mr. FRANK.—Q. Mr. Gray, in reading over your testimony, I notice on pages 1983 and 1984 the following which may be the subject of some doubt as to what you really meant to testify to, when standing alone, although in connection with your subsequent testimony there would be no doubt about it. However, I will call your attention to it, and ask you what you have to say in reference to it. You were asked:

“Q. Now, your bid of \$11,749, as embodied in Christy Exhibit ‘B,’ includes the removal of the crank-shaft in accordance with the original specifications, did it not? A. Yes, oh, yes.

Q. What was the understanding about this undetermined matter of the taking of the crank-shaft out?

A. Well, there was a timekeeper sent to the yards to look out for the job as a whole, and he was supposed to determine what the loss or what the saving would be.

Q. And if there was a saving the Matson people would get the credit for it?

A. Most assuredly they would have got the credit

(Testimony of Harry Paul Gray.)

for it; that is what they put the timekeeper on the job for.”

Now, in that examination, I now ask you whether or not you were referring to a saving on the crank-shaft or a saving generally [2134—2046] upon the entire job.

Mr. McCLANAHAN.—I object to that question as leading, and not proper rebuttal.

Mr. FRANK.—Q. Answer the question.

A. Why, the saving on the entire job, as I have explained several times.

Q. Was there any agreement or understanding that the timekeeper should be put on the job to ascertain what, if any, saving there would be if the crank-shaft did not have to come out in order that they might have credit for that?

Mr. McCLANAHAN.—I object to that as leading and not proper rebuttal.

A. The timekeeper was keeping time on the job as a whole; whatever additions there were to be made to it, to the crank-shaft, or subtracted, he was supposed to keep track of those the same as the rest of the job or the same as any other item, if it was added to it or taken from it.

Mr. FRANK.—Q. Well, I am asking you now what the understanding was, whether or not at the time you and Mr. Matson came together there was any agreement or understanding between you that the work should be done for this \$11,750, with the understanding that if the crank-shaft did not have to come out, that a deduction should be made—

(Testimony of Harry Paul Gray.)

A. There was no bearing put upon—

Mr. McCLANAHAN.—(Intg.) I object to that.

Mr. FRANK.—Q. (Contg.) For the crank-shaft, if it did not have to come out?

A. There was no bearing put on the crank-shaft at that time any more than anything else.

Q. Then this examination which I have referred to was intended [2135—2047] to be in the same line as your subsequent testimony to the effect that he was dissatisfied with the amount of the entire contract and put a timekeeper on to see if he could make any saving out of the \$11,749 generally. Is that right?

Mr. McCLANAHAN.—I object to counsel's summarization of the testimony of the witness, and I further object to the question on the ground it is not proper rebuttal.

A. That is correct. That is what was said about the matter. It seems to me it was repetition of what I have said before.

Mr. FRANK.—Q. I say, is that what you mean when you said in the answer: "Well, there was a timekeeper sent to the yards to look out for the job as a whole"?

A. That is exactly what I had in mind.

Q. You have spoken in your cross-examination about three shifts, the possibility of three shifts, working in 24 hours. Would there, or would there not, have been any saving in putting three shifts on this job?

A. There would not have been any saving. There

(Testimony of Harry Paul Gray.)

would not have been any saving, but I say the machinists' union will allow that.

Q. Well, I mean, would there have been any saving on overtime?

A. Well, you must remember it is hard enough to work two shifts and have the men mind the job from one shift to the other without making mistakes. If you had a third shift in there, why it would be a practical impossibility, and in fact I have never done it, and I have never known of anyone that has done it; never known a case in San Francisco where it has been done on the overhauling of an engine.

Q. That is not practicable?

A. It is not practicable. I made that statement because the machinists' union will permit it. [2136—2048]

Q. In other words, that so far as the measure of time is concerned, the fact that the men are working outside the daylight hours would not necessarily be straight time if they were working three shifts?

A. You could arrange it so that you could work straight time throughout the twenty-four with the machinists, the machinists' union permits it. But I have never done it, and I have never known a case where it has been done in San Francisco.

Q. You say it is not practicable?

A. Not practicable.

Q. Now, according to this crank-shaft, Mr. Gray, a great deal has been said concerning the saving, or possible saving from the fact that the crank-shaft

(Testimony of Harry Paul Gray.)

did not come out. What preparations had been made to take the crank-shaft out previous to the time of determining that it should not come out?

Mr. McCLANAHAN.—I object to that as calling for a reiteration of testimony already brought out on redirect examination, and therefore not proper rebuttal.

A. You mean a detail of the work that was performed preparatory to the shaft's coming out and being taken to the shop?

Mr. FRANK.—Q. No, I mean in a general way, what had been done? In other words, was the shaft of the ship placed in position where it could have been taken out *with any* further alteration?

Mr. McCLANAHAN.—The same objection.

A. The shaft was jacked up out of the housings; the skylight over the engine-room was cut preparatory to the shaft going up through the skylight.

Mr. FRANK.—Q. What would have been necessary to have taken it out?

A. You would have to had up-ended it, hooked on the sheer-legs raised it up, and put it on a truck, which [2137—2049] truck was on a track, and wheeled it into the machine-shop, and in returning gone through the reverse process.

Q. I understood you to say, also, that the fact it did not come out required work to be done upon it by hand in reducing the shaft and the corrugations in it and such matters, which if it had been done in the shop, would have been done in the lathe.

Mr. McCLANAHAN.—I object to the question as

(Testimony of Harry Paul Gray.)
not rebuttal and leading.

A. That is true.

Mr. FRANK.—Q. What, if any, saving in your opinion in cost or expense was there in the fact that the shaft was not taken out and this work was done by hand in the vessel instead of in the lathe?

Mr. McCLANAHAN.—I object to that question as not rebuttal.

A. Once having had the shaft in the shop the work that was done on it could have been done cheaper than having to do the same work in the ship by hand.

Mr. FRANK.—Q. Well, what relation did that difference in expense have to the cost of taking it out and taking it to the shop and returning it?

A. If I was figuring on the job, Mr. Frank, I would call it a stand-off—making an estimate on it.

Q. What would be the expense in your opinion of taking the shaft out to the shop and back, irrespective of the work to be done?

A. Well, starting from where?

Mr. McCLANAHAN.—I object to that as not rebuttal.

Mr. FRANK.—Q. From the position from which it was jacked up and the skylight taken out and the preparatory work done?

A. From the jacked-up position? [2138—2050]

Q. Yes.

A. Now, you are covering the removal of the shaft to the shop and return.

Q. And return; yes.

(Testimony of Harry Paul Gray.)

A. And from the lathe back again to its position in the ship, jacked-up position.

Q. Yes.

A. I should say \$300 each way—\$600 or \$700 for that item.

Q. Would that be the extreme in your opinion?

A. That is what I would bid on it. That is the amount that I would put in on the estimate if I was figuring on it. That just covers the moving of the shaft out of the ship to the shop in the lathe and back again, no hand work.

Q. It covers the work that would have been necessary to have been done in addition to the work that actually was done on the shaft under the contract. Is that right? A. Yes.

Q. You have been asked about Klitgaard's statement concerning the amount he was paid for making an estimate, and you said \$750. Did he give you to understand that was for making the estimate only?

Mr. McCLANAHAN.—I object to that as immaterial.

A. Three months' work, he told me, he said he worked for them about three months; it would not take three months to make the estimate.

Mr. FRANK.—Is that your answer?

A. Well, I suppose to do that, and whatever time they kept him here.

Mr. McCLANAHAN.—I ask that the answer be stricken out as a supposition.

Mr. FRANK.—Q. I am asking you what he told you and not what you suppose. Did he tell you any-

(Testimony of Harry Paul Gray.)

thing about what it covered?

A. Well, he told me that he had been working for them for three months; \$750 covered that amount of detention, [2139—2051] that amount of his time.

Q. He told you he was working for them for three months. In what capacity did he say he was working for them?

Mr. McCLANAHAN.—I object to that as immaterial.

A. Well, he made an estimate for them; they kept him here as a witness, used him on the job in a general way, I suppose, as an expert.

Mr. McCLANAHAN.—I ask that the answer be stricken out as a supposition.

Mr. FRANK.—Q. I do not care what you supposed. I am only asking you to tell me what he said. Did he include his services as a witness in that statement?

Mr. McCLANAHAN.—I object to that question on the ground it is not properly stated, and also leading. I do not object to his giving the conversation.

A. Yes.

Mr. FRANK.—Q. What were your relations with Klitgaard? You have been asked a great deal about it. Were they any different from those that you necessarily have with every engineer on a ship that you are doing work for?

Mr. McCLANAHAN.—I object to that as not proper rebuttal, and calling for a reiteration of the witness' testimony formerly given.

A. My relations were those, the same as I have

(Testimony of Harry Paul Gray.)

with any engineer—it is my duty to go aboard the ship and talk with them about the jobs, what is to be done, or how it is to be done; this position I took with him was exactly the same as with all engineers on the Front.

Mr. FRANK.—Q. In all of the work that you did on this vessel, did Klitgaard ever favor you any?

Mr. McCLANAHAN.—I object to that as immaterial and [2140—2052] not proper rebuttal.

A. He did not favor me any; I don't think he could if he had wanted to.

Mr. FRANK.—Q. The question is directed to ascertaining whether or not he exacted from you everything that every other engineer would exact from you?

Mr. McCLANAHAN.—The same objection.

A. He certainly did, and at times a good deal more.

Mr. FRANK.—That is all.

Recross-examination.

Mr. McCLANAHAN.—Q. Mr. Gray, do you wish us to understand that you and Captain Matson had an agreement in regard to Mr. Putzar?

A. That Captain Matson and I had an agreement?

Q. Yes.

Mr. FRANK.—In what respect, an agreement?

Mr. McCLANAHAN.—We will find out from the witness.

A. He said he was going to send him to the yard as a timekeeper.

Q. That is not an answer to my question.

(Testimony of Harry Paul Gray.)

A. That is the only agreement I know anything about.

Q. You did not have any agreement with Captain Matson? A. No further than that; that is all.

Q. That is simply a statement made by Captain Matson. Did you have an agreement made by Captain Matson?

Mr. FRANK.—I object to that as calling for a conclusion of law.

A. That is all the arrangement that was made, or agreement.

Mr. McCLANAHAN.—Q. He simply told you he was going to have a timekeeper on the job.

A. He was going to send a timekeeper to the yard.
[2141—2053]

Q. Is that all he told you? A. That is all.

Q. Nothing else? A. Nothing else.

Q. Now, we have heard you speak of three shifts of men working on this job as a possibility. If it had been practicable you could have saved all the overtime on the job, could you not?

A. You would have run into more mistakes by the time you got through than any saving you would have made.

Q. That is not what I asked you.

A. I think that is a perfect answer to it, a perfect answer. As far as my knowledge of that job is concerned I think it is a perfect answer.

Q. Now, is it not true that if you had had three shifts each shift would have worked eight hours straight time? A. Yes.

(Testimony of Harry Paul Gray.)

Q. And there would have been no overtime charged?

A. Oh, but the mistakes that you would have had would have eaten up everything else.

Q. I say, there would not have been any overtime charged.

A. Have you ever seen a case done that way?

Q. I say, there would have been no overtime charged.

A. You could not have charged any overtime.

Q. Now, these mistakes would have consisted of what? Simply the mistakes which would arise through turning the job over from one shift to the other?

A. There is always a great deal of confusion caused from turning a job over from one shift to another, anyway.

Q. Those are the mistakes you refer to?

A. All kinds of confusion, all kinds of delays.

Q. Those are the mistakes you refer to?

A. Those are the mistakes, certainly.

Q. Now, how are those mistakes obviated when you work two [2142—2054] shifts, or minimized, when you work two shifts? Let me suggest it to you. are they not obviated by detaining a foreman for an extra hour to instruct the oncoming foreman as to the work that has been done and the work that is to be done?

A. Tell me this: where would you get enough skilled men to handle three shifts of that kind?

Q. You answer my question, Mr. Gray: when you

(Testimony of Harry Paul Gray.)

are working two shifts, are those two mistakes minimized by the method I have suggested?

A. By having the foreman stop over?

Q. Yes.

A. Of course that would be absolutely necessary in shifting from one to another.

Q. That is the method you pursue, is it not?

A. That would be the method.

Q. And in that method then the mistakes are minimized, are they not?

A. Minimized, but not obviated.

Q. And that is the only thing, the possibility of mistakes, that make the three shift proposition impracticable?

A. Well, the fact remains that it never has been done, and if there was any money to be saved by such a process, I think that we would have done it in the past.

Q. That is your answer to my question, is it?

A. Read your question again and I will try and answer it again.

(Last question repeated by the Reporter.)

A. The possibility of mistakes?

Q. The possibility of mistakes.

A. And the difficulty of getting a sufficient number of skilled men. Those are two very important items.

Q. Anything else?

A. Well, I think that is about all I can think of at the present time.

Q. Now, will you please examine Gardiner's Ex-

(Testimony of Harry Paul Gray.)

hibit 1, or any [2143—2055] of the exhibits which show the fourteen items of specification work, and referring to Item No. 9 state whether or not there is a method of removing the crank-shaft suggested in that item, a method of removing the crank-shaft from the ship.

A. You mean a direction by which it should be taken out of the ship?

Q. Yes. A. Well, it says—

Q. (Intg.) Answer the question, yes or no, Mr. Gray.

A. It says here, virtually says, that the shaft shall be taken out through an opening cut in the bulkhead abaft the engine. This is what this means.

Q. Tell us where would you take it out into the clear, from where—through a hatch?

A. Through a hatch. But I suppose you could get some other method of taking it out.

Q. You have given us another method, I know.

A. That would save cutting this bulkhead.

Q. You have referred, Mr. Gray, to the work necessary had the crank-shaft been taken to the shop. You were not mindful when you referred to that work, were you, that you were not prepared to do the work in that shop called for by the 9th item of the specifications without a rearrangement of your tools?

A. Well, that rearrangement is a common rearrangement. You mean raising the lathe?

Q. Yes, that is one thing.

(Testimony of Harry Paul Gray.)

A. That is a thing that is done in every shop in existence.

Q. Even though you should raise the lathe, that would be an expensive proposition, would it not?

A. Well, not a very expensive thing; the thing could be done for two and a half—

Q. (Intg.) What about the reach of the lathe?

A. The centers of the lathe? [2144—2056]

Q. The centers, would they be long enough to take that crank-shaft and the intermediate crank-shaft—

A. (Intg.) Bolted together?

Q. Yes.

A. No, I would not need to bolt them together.

Q. But the specifications call for that?

A. It calls for that, but I could do it this way, if necessary—I don't need my centers. I can do it in a steady rest.

Q. It would be expensive to do that?

A. It would not make any difference to me which way I did it, but the other way is the best, between the centers—

Q. (Intg.) That is the way you could not have done it?

A. That is, having it bolted together?

Q. Yes. A. I could have done it.

Q. Between the centers?

A. No. It does not call for it between the centers.

Q. You could not have done it as called for by the specifications, could you?

A. Does that call for it between the centers?

Q. Read it and see.

(Testimony of Harry Paul Gray.)

A. It is pretty hard to read it.

Q. How would you have done it?

A. I would have secured the out board end, that is the end that stuck over the lathe, taken the weight on a steady rest, not used the centers.

Q. That would have added expense, would it not, to the expense that you have already suggested?

A. It was absolutely foolish to try to do the job in that way, absolutely foolish.

Q. You mean it was absolutely foolish to do the job as you have suggested by having the steady rest?

A. It was foolish to do the job the way the specifications call for.

Q. You mean it is foolish to take the crank-shaft out? What is there foolish about it?

A. The foolish part of it is the [2145—2057] way you are trying to handle this in the lathe, the idea of bolting the shaft up, and bolting it up and then truing it up after—bolting your thrust-section and crank-shaft section and then truing up your thrust-section—what is the necessity for it? What is the call for it? What good is it going to do?

Q. You figured on it?

A. I figured on it, but I knew it would never be done in that way, because I have been in a machine-shop ever since I was fourteen years old, and I have never seen a job handled that way, and I am 47 now.

Q. In figuring on that, Mr. Gray, you did add something to the cost of doing that work which you have not mentioned in the rebuttal evidence?

(Testimony of Harry Paul Gray.)

A. Well, Mr. McClanahan, I did not figure on doing, putting these two shafts together, when the machine work was to be done on them, because I knew it never would be done that way. I knew that I would get each section separately and machine it up and make a nice job of it, while in this other way you would be throwing money away, both my money and the Matson Navigation Company's money.

Q. So you really did not in figuring on Item 9 figure on the work as called for there?

A. I did not figure on doing it that way, it would have been foolish. Why should I do a foolish thing, when I know that it is wrong?

Q. So you figured it in another way?

A. I figured it in the same way as any shop in the United States would do it, each section at a time.

Q. Well, that is another way.

A. Well, it is another way, if you want to call it that.

Q. In figuring on it in the way which you have stated was the right way, you have not given us all the items of expense connected with that work which you gave in your rebuttal evidence? [2146—2058]

A. What do you call rebuttal evidence?

Q. The evidence that preceded my examination just now, the evidence called for by Mr. Frank this morning.

Mr. FRANK.—You mean the \$300?

Mr. McCLANAHAN.—I think that is about all he puts it at.

A. It would amount to \$300 each way. I esti-

(Testimony of Harry Paul Gray.)

mated it on taking the shaft from where it was jacked up, up-ending it through the engine-room on to a truck and putting it into the lathe, that that would amount to \$300.

Q. Putting it into the lathe as called for by the items of the specifications?

A. And then \$300 to go back. That is what I stated in the rebuttal.

Q. Does that include all of the expense necessary and on which you figured when you figured on that work doing it your way?

A. That is what I figured on doing it that way. I never estimated on bolting this up and putting it in the machine together, the two sections together. I put them in separately, the same as any man that understood his business would do.

Mr. McCLANAHAN.—Well, I do not think we are getting together at all.

Mr. FRANK.—You cannot get together because you are working at cross purposes.

Mr. McCLANAHAN.—Q. The \$300, Mr. Gray, was simply the expense of taking it out of the ship and putting it in the lathe after the lathe was prepared for it? A. That was it; yes.

Q. Had no reference to the preparation of the lathe itself? A. No.

Q. So there are other expenses besides the \$300 which you have spoken of? [2147—2059]

A. Well, there would be the lifting up of the lathe, lifting it up to put the blocks under the lathe; yes.

Q. Anything else?

(Testimony of Harry Paul Gray.)

A. That is all that I can see.

Q. So, then, as a matter of fact you did not figure on Item 9 in the manner called for by the item itself?

A. Not that way, because I knew it would not be done that way, but I could do it.

Q. And the way you did figure on it was a very much more expeditious and a very much—

A. (Intg.) More sensible.

Q. (Contg.) More sensible and very much cheaper way than the other way would have been?

A. Well, it was a better way.

Q. Well, was it not a cheaper way, Mr. Gray?

A. There would have been a difference if I had to bolt that shaft up in the shop; there would have been some difference. Of course I would have to take them up separately, and take each section up separately, and face them up, that is, face the couplings, put in the coupling bolts, and then show the engineer in charge that the shaft was running true. That would be all.

Q. And that work would not be done to centers at all?

A. The only difference would be the bolting up of the shaft in the shop, that is putting in the coupling bolts and removing them again,—after having faced the couplings the way I have attempted to describe them, and putting in the coupling bolts, I would have to put the shaft back in the lathe and then test it.

Q. But the lathe would not have been long enough?

A. But I could have taken off pieces until it was

(Testimony of Harry Paul Gray.)

true. I would not have had centers, no, but I would have put it in the steady rest.

Q. And that steady rest, putting it in there, would have cost [2148—2060] some money?

A. Back in the second time, that would not amount to much because your lathe is all jacked up, and, in fact, you would assemble it in the lathe.

Further Redirect Examination.

Mr. FRANK.—Q. Is the jacking up of the lathe an expensive job, Mr. Gray?

A. It would take, I suppose, half a day to raise the head stock and tail stock and put the blocks underneath it.

Q. Blocks already prepared, aren't they?

A. These blocks are prepared. They are a part of our equipment.

Q. That is not a very expensive job either, is it?

Mr. McCLANAHAN.—I object to that as leading.

A. Which?

Mr. FRANK.—Q. Jacking up the lathe is not an expensive job.

A. Why, I should say—if you want me to place it in dollars and cents, it would cost about \$15.

Q. Now, with respect to the changing of shifts, when a man is working on an unfinished job and another man takes it up, is there any loss of time in the other man's taking it up where the first man left it off?

A. Well, the man has to transfer his job over to the other fellow; it depends a whole lot on the intelligence of the man. Of course, there is a loss of

(Testimony of Harry Paul Gray.)

time. If you could take one shift and work it right through until the job was finished, that would be the way to do it, but of course that is impossible, you have got to give a man some time off.

Q. When a man works long overtime as some of these men did, for 24 consecutive hours, state whether or not that is a saving.

A. Mr. Frank, some jobs are so—the danger would be so great in transferring from one man to another that it is better to keep [2149—2061] the crowd on there and finish it.

Q. At any rate, this work was done in the cheapest practical way that you know how?

A. In the cheapest practical way we knew how, and the only way we have ever done such a job, and the only way I have heard of it being done. I never heard of a three shift job being done in this town, a repair job.

[Testimony of L. Wilhelmson, for Libellant (Recalled—In Rebuttal).]

L. WILHELMSON, recalled for the libellant in rebuttal:

Mr. FRANK.—Q. Mr. Wilhelmson, you were during the time of this job superintendent over at the works of the United Engineering Works?

A. Yes.

Q. Do you remember that the second item in the specifications mentioned was not performed?

A. That was not performed; no.

Q. The balance cylinder, however, was installed, was it not?

(Testimony of L. Wilhelmson.)

A. The balance cylinder and two valve stems were changed, and a good deal of work in the steam chest, there was some springs there altered; some work on the binder, on the stems there; that balance cylinder was piped up to the condenser, and the top of the valve, there was some kind of block fitted up there with a nut and set-screw, fitted on top of the valve.

Q. Mr. Saunders, at page 1455, testifies, concerning this work, that at the time the change was made:

“Q. Who was present at that time? A. Mr. Klitgaard, Mr. Williamson and myself, and possibly some others. Q. Do you remember now the gist of the conversation? A. Mr. Klitgaard explained to me that the work as called for in the specifications did not need to be done.”

An objection was there interposed and then Mr. McClanahan [2150—2062] continues:

Q. Was Mr. Williamson there at that time?

A. He was.

Q. Go on.

A. (Continuing.) And that the United Engineering Works, through Mr. Williamson, had agreed to put what he called the balance cylinder on as compensation for not performing this item 2 of the specifications.

Q. Was the question of debit or credit to either party mentioned?

A. There was to be no debit or credit; it was considered an equal exchange.

Q. Did Mr. Williamson make any statement at that time of approval or disapproval?

(Testimony of L. Wilhelmson.)

A. He thought that that would be the proper thing to do with the cylinder.

Q. Now, state whether or not you made any agreement of any sort at that time.

A. Well, I was entertained of the proposition by Mr. Klitgaard, but I cannot have any voice, but I have no voice in that matter; this is the specification and it is up to the firm to change anything. The mechanical end is what I was there for, to attend to, and not any arrangement why or wherefore.

Q. Well, did you agree to it? A. No.

Q. What passed between you, if you recollect?

A. Mr. Klitgaard asked me whether it would look equal or not. Well, a balance cylinder may look equal—

Mr. McCLANAHAN.—Q. Are you giving the conversation?

A. No, I could not possibly, no, give the conversation; it would be impossible.

Mr. FRANK.—Q. Give the substance of it.

A. Well, the substance would be the balance cylinder part may be all right, but too much other things was coming up; for instance, valve stems, and so forth, to make me not consider [2151—2063] it to be a similar job.

Q. Well, did you agree to substitute it as a debit or credit?

A. No, I had no right to do that. I referred these matters to Gray. For instance, it would be hard for me to determine, probably, whether at that time, too many points came up, stems, two stems to be changed,

(Testimony of L. Wilhelmson.)

and the alterations—

Q. (Intg.) I am not asking you for your reason for it. I am asking you whether or not you agreed to it, and what, if anything, you did about it.

A. Well, I have no right to.

Q. Well, did you? A. No.

Q. Then, I understand you, you referred them to Mr. Gray?

A. Always, I referred them to Mr. Gray or Mr. Christy.

Q. Now, I will read you Mr. Klitgaard's testimony concerning specification No. 2 on page 1577, at the bottom:

“Q. What work? The work called for by specification 2?

A. The work called for by the specifications, but in recompense for that Mr. Williamson and I agreed that we would fit a 12-inch balance piston on top of the low-pressure valve, pipe it up to the condenser, and lengthen the valve stems, fit the nuts, etc., that were found necessary to fit the new conditions. In other words, that was to be a recompense for the second item.”

Then after some explanation of details, he goes on:

“A. Mr. Williamson and I entered in that agreement, and it was subsequently put up to Captain Saunders; he referred it back to Captain Matson and reported to me that Captain Metson had said that as long as I thought it was all right, to go ahead with it. Mr. Williamson was present when he reported that to

(Testimony of L. Wilhelmson.)

me. He asked Mr. Williamson if it would be all right.

Q. Who did?

A. Captain Saunders did. He said, 'Mr. [2152—2064] Williams said that was all right.' Later I told Mr. Gray about it, and he told me that any alterations or things of that nature that in future turned up, as long as Mr. Williamson was satisfied, he would be satisfied; that any agreement I came to with Mr. Williamson, as far as recompense matters were concerned, was all right."

Q. Now, any such matter pass between you and Mr. Klitgaard as there testified?

A. He approached me on the subject at that time, but I referred it over to Mr. Gray, and he may eventually say that, as said there, he would leave it up to me.

Q. The question is, was any such thing done in your presence? A. No.

Mr. McCLANAHAN.—I object to that upon the ground it is not rebuttal. There is no statement in the evidence of Mr. Klitgaard that it was done in his presence.

Mr. FRANK.—Well, of course, what the testimony shows he might or might not have done, not in his presence, is not testimony. I am not asking the witness to argue the proposition of what or might not have been done, I am asking him what he did, and not to pass upon the testimony of other witnesses with which he had nothing to do, at which he was not present.

(Testimony of L. Wilhelmson.)

Q. Did these matters concerning the balance cylinder and the nuts and these different changes all come up at one time, or did they come up at different times as the work progressed?

A. They were continually coming and going every day, new suggestions, and new alterations.

Q. Were you present when any discussion was had concerning the substitution of a bronze patch instead of a column for the support of the engine?

A. Yes, I was present.

Q. Did you ever hear Mr. Gray make any agreement with Klitgaard [2153—2065] with respect to that bronze patch, as to whether it should be a recompense for the iron column, provided the weight of material in this bronze patch did not amount to too much, or did you hear him make any agreement that if it did not weigh over 900 pounds it would be a fair recompense, and anything over 900 pounds they were to pay for the extra bronze?

A. Yes, they understand all that very well, but I never heard anything like that in my presence. The only thing in my presence was the virtue of the patch or column as a mechanical end, and that is all.

Q. Were you present during all of the discussions down there in respect to the bronze patch?

A. In respect to the merits of the column or patch; yes.

Q. I am asking you whether you were present during those discussions? A. Yes.

Q. Whenever Gray was present? A. Yes.

Q. What is your opinion as to the expense of the

(Testimony of L. Wilhelmson.)

patch as compared with the column, whether it was much greater or otherwise?

Mr. McCLANAHAN.—I object to that as not rebuttal.

A. The patch was in excess of the column.

Q. You say in excess; was it very much in excess?

A. Oh, yes; a couple of times greater; probably three times.

Q. Did you ever have anything to do with Mr. Kinsman, consult with him in any wise respecting any of the work being performed on the “Hilonian”?

A. No. I only met him aboard the ship performing his duties, but Mr. Klitgaard was the only one that I transacted business with; and eventually—it is no business talk with Mr. Kinsman. [2154—2066]

Q. Where did you get your copies of the specifications from? A. From the office.

Q. From what office?

A. From the Alameda office.

Q. Did you ever get any copy of any specification of any kind from Mr. Klitgaard?

A. Not to my recollection.

Q. Well, if you did, would you recollect it?

A. No.

Q. What?

A. I got all of the copies I wanted from our own office.

Q. Would you accept any from Klitgaard if he offered them to you?

A. I am responsible to the office, and from there I got to take the information.

(Testimony of L. Wilhelmson.)

Q. What, if anything, can you say with reference to the work necessary to be done in order to run a line on the crank-shaft or prepare the crank-shaft for the running of a line, as to whether it was a big or small job?

A. I would like to hear that question again, I did not understand the first couple of words. (The last question repeated to the Reporter.) The actual running of the lines is not a very large job, but preparing for it may be larger, considerably larger.

Q. Do you know, Mr. Wilhelmson, what work was done preparatory to taking the crank-shaft out?

A. Before the shaft was taken out?

Q. Well, all of the work that was done preparatory to taking the crank-shaft out, before it was determined not to take it out?

Mr. McCLANAHAN.—I object to that as not rebuttal. I do not know what it rebuts.

A. The head and pistons had been drawn; probably at the time the piston rods were, I am not sure; all the main journal binders were removed; the connecting rods, valve gear, coupling [2155—2067] bolts and shaft lifted up a couple of feet above the housings before we run the line; that would be about all.

Mr. FRANK.—Q. Was any opening prepared to take the shaft out of the ship?

A. It was a hole cut in to the bulkhead above the thrust, whether at that time or not I could hardly say, whether the hole at that time was just cut when the line was run I couldn't say.

Q. How about the skylight—what was done with

(Testimony of L. Wilhelmson.)

reference to the skylight?

A. My idea of removing the shaft—

Q. (Intg.) Not your idea of removing it, but what was done with reference to the skylight?

A. Well, the skylight was the access to the engine-room for all gear.

Q. Was or was not it removed?

A. I don't know.

Q. You don't remember? A. I don't remember.

Q. With reference to the cleaning out of the tank, Mr. Wilhelmson, what was the original intention with reference to cleaning out the tank?

Mr. McCLANAHAN.—I object to that as not rebuttal of anything that I can remember in the record.

Mr. FRANK.—Q. Go on, Mr. Wilhelmson.

A. It was first proposed to clean the tank, that is, the port tank, I think, but our men done the job.

Q. Well, why?

A. Well, in order to get it quicker done, or else they would never get it cleaned. That is about my recollection.

Q. What was the condition of the tank?

Mr. McCLANAHAN.—I object to that as not rebuttal.

A. The condition of the tank was very bad, congealed oil, and so forth.

Mr. FRANK.—Q. Well, what did it necessitate then to get [2156—2068] out quickly?

Mr. McCLANAHAN.—I object to that as not rebuttal.

Mr. FRANK.—Q. Originally you cut a hole in it,

(Testimony of L. Wilhelmson.)

a small hole in it, with the idea of running it out. Is that the fact?

Mr. McCLANAHAN.—I object to that as not rebuttal and leading.

A. Yes, the oil would not run, almost in the condition to wrap up in a piece of wrapping paper, and being congealed it had to be taken out in buckets.

Mr. FRANK.—Q. It had to be taken out in buckets? A. Yes, most of it.

Q. How was it taken out?

A. It was hoisted up in the after hold and passed out over the deck, over the side there, I think it was deposited on some of the sand lots there.

Q. State whether or not that was a long job, a difficult job or otherwise.

Mr. McCLANAHAN.—I object to that as not rebuttal and leading.

A. The cleaning of the tanks is rather a large job at the very best, and this bad condition prevailing made it a larger job still.

Mr. FRANK.—Q. Have you any idea how long it took?

Mr. McCLANAHAN.—I object to that as not rebuttal.

A. I don't know how long, no; I could possibly not remember.

Mr. FRANK.—Q. Now, with reference to this tank-top, Mr. Wilhelmson, what was done?

Mr. McCLANAHAN.—I object to that as not rebuttal.

A. The starboard tank was not touched at all; the

(Testimony of L. Wilhelmson.)

port tank only; to my best recollection almost the entire tank-top was finished at last with the exception of probably one plate only. [2157—2069] We had two goes with that tank. I believe there was a test on it at the latter end, and Mr. Hurley had to go at it a second time.

Q. What happened after you had finished once?

A. Well, there was something carried away, I think, something developed on the tank.

Q. You say you think. Have you any distinct recollection of what went on that tank-top?

A. What is that?

Q. Haven't you a distinct recollection of what went on with respect to that tank-top?

A. The details would be very hard.

Q. I show you Respondent Kinsman's Exhibit No. 1, and ask you how far toward the bulkhead, which is the forward bulkhead, 2-3, the tank was renewed.

A. Well, to my knowledge about a foot, something like that, within a foot of that.

Q. Of the bulkhead? A. Something like that.

Q. How far was it renewed to the after-bulkhead, 1-4?

A. Something similar. It seems to me like there ought to be a manhole plate there (pointing). I am not sure; in the vicinity of that manhole plate—this does not give a fair idea of the tank-top.

Q. That is, Kinsman's Exhibit 1 does not?

A. Of course it is not attempted to scale. Of course, probably a person might be misled by it. This represents the margin, I suppose (pointing).

(Testimony of L. Wilhelmson.)

Q. Was anything done to the last plate next to the after-bulkhead?

A. The last plate to the after-bulkhead—I think that is the last job they done.

Q. Well, what was it—what happened to it?

A. I don't know for sure.

Q. Well, it is needless to say I am very much surprised, Mr. [2158—2070] Wilhelmson, that you don't know. You described the whole thing to me within a day or two, and I do not understand what is the matter now. There is no need of your being afraid in this matter. You are only here to tell the truth, and you need not be afraid to tell it.

A. Nothing but the truth I can tell.

Q. Do you remember the testing of the tank-top after you had first repaired it?

Mr. McCLANAHAN.—I object to the question as leading.

A. The tanks were tested by Mr. Hurley.

Mr. FRANK.—Q. What happened when they were tested?

Mr. McCLANAHAN.—Q. Do you know?

A. I was not present.

Mr. FRANK.—Q. Well, were you called there afterwards to inspect it?

Mr. McCLANAHAN.—I object to that as leading.

A. I don't remember that I passed any inspection on it just at that time.

Mr. FRANK.—Q. I call your attention to the testimony of Mr. Klitgaard with respect to change in Item No. 5 of the specifications, at page 1581:

(Testimony of L. Wilhelmson.)

“A. The H. P. and L. P. eccentric straps, they were not remetaled or refitted. No work at all was done to the H. P. eccentric straps. In recompense for doing this work the H. P. and L. P. eccentric straps were taken up to the shop and two brass liners were cast and fitted on to them. These liners were pocketed and filled with challenge metal. Then the whole was taken down to the shop and fitted to the sheaves. Q. With whom was this arrangement made? A. With Mr. Williamson, Mr. Putzar and myself. [2159—2071] Q. Tell us the details of the arrangement. A. The arrangement was that all this work was done as I have described here, and the low-pressure eccentric sheaves were to be trued up in the lathe and we were to allow them 300 pounds of bronze. Q. What was that allowance for? A. Because otherwise the work would not be a fair compensation for the remetalling and refitting of the high-pressure eccentric straps.”

Did you make any agreement with Mr. Klitgaard that that work should be compensation for Specification No. 5? A. No.

Q. Or did you make any agreement with him that it should be recompense for Specification 5, except that they were to allow you 300 pounds of bronze?

A. I made no such agreement. I don't know of the deal.

Q. What?

A. I never heard of the deal, in my presence.

Q. I call your attention to the testimony of Mr. Klitgaard at page 1579, where he says, speaking

(Testimony of L. Wilhelmson.)

of the item No. 4 of the specification:

“A. No. 4, ‘Make tight H. P. and L. P. guides for water circulation, as specified.’ Instead of putting in these extra screw-stays which it calls for here, heavier plates were put on the back of the guides. Instead of reconstructing the H. P. and L. P. shoes, as the specification calls for, there were new castings made. Q. By ‘castings’ you mean new shoes, do you not? A. New shoes were made and cast in the machine and rebabbitted. The agreement was between Mr. Williamson and myself that we would pay for the babbitting of the shoes; in other respects, the changes that had been made in this item were in recompense for what was not done under the item.”

[2160—2072]

Did you ever make any such agreement with Mr. Klitgaard? A. No, not to my recollection.

Q. Well, you mean by that you simply have no recollection of it, or do you mean that you did not make the agreement?

A. Well, they asked often absurd things; that does not say that I would be willing to entertain it in fact. This item is simply absurd, on account of the new castings, and labor involved, and as for allowance on it, I never made any.

Q. Well, did you make any agreement with him at all respecting it? A. No.

Q. I will ask you generally, Mr. Wilhelmson, did you ever make any agreement with Mr. Klitgaard or Mr. Saunders respecting any of the items of the specifications being changed and other work being

(Testimony of L. Wilhelmson.)

done instead of those items in lieu of or as compensation for the work omitted.

A. I made no agreement, but I was often asked to make concessions, but I had continually to refer it to the firm. I have no right to change.

Q. Well, you say you have no right to change. Did you make any, or consent to any of them being done?

A. No. I said previously. I made no changes although often I was asked to make such concessions, I referred such matters as that to the firm, Mr. Gray especially; the absurdness of some questions would also not allow me to entertain a thought upon some of them.

(A recess was here taken until 2 P. M.) [2161—2073]

AFTERNOON SESSION.

L. WILHELMSON, direct examination resumed:

Mr. FRANK.—Q. Mr. Wilhelmson, was there any slab bending work on the protection plates on the stern of the vessel?

Mr. McCLANAHAN.—I object to that as not being rebuttal.

Mr. FRANK.—Q. There was? A. Yes, sir.

Q. Was there anything in the way of corrosion on the stern of the vessel where the protection plates were put on, that could at any time be observed by anyone examining that vessel? I mean under the protection plates?

Mr. McCLANAHAN.—I object to that as not being rebuttal and also upon the further ground that the witness has not shown any knowledge of the work

(Testimony of L. Wilhelmson.)

done around the stern of the vessel on the outside.

Mr. FRANK.—Q. Go on.

A. There is always more or less corrosion on the stern-post, and the protection plates are placed there for the purpose of protecting same with a layer of putty in between.

Q. With a layer of putty in between?

A. Yes, sir, in between.

Q. Then, anybody attempting to look underneath the protection plates would be unable to see whether or not there is any corrosion under that. Is that right?

Mr. McCLANAHAN.—I object to that as calling for a conclusion.

A. If the protection plates were removed anybody could see.

Mr. FRANK.—Q. But with the protection plates on could anybody see? A. No, sir. [2162—2074]

Q. How is the putty put in?

A. The putty is of a heavy consistency and applied by hand, and squeezed on, squeezed on with jacks and top bolts, afterwards inserted and screwed on tight; sometimes a putty pump is applied to fill up crevices that may become vacant.

Q. Then by that process the entire aperture is filled, is it?

A. It is the purpose to fill it all. It most always is.

Q. Was there anything done on the wheel of the vessel before the vessel was put in the dock?

A. Yes, sir, on the barge; while the wheel was

(Testimony of L. Wilhelmson.)

laying on the barge coming from the other side of the bay some fitting was done in the hub.

Q. Why was that done?

A. Something was the matter with the keyway.

Q. With the keyway? A. Yes, sir.

Q. Was anything else done to the wheel?

A. Later on it was put on; put on and fitted on the shaft.

Q. Put on and fitted on the shaft? A. Yes, sir.

Q. Was any portion of the wheel cut or chipped off?

Mr. McCLANAHAN.—I object to that as leading.

A. I don't know.

Mr. FRANK.—Q. You don't know?

A. No, sir.

Q. Do you remember whether there was any lagging done on a cylinder in the shop, except on a balance cylinder.

A. Will you kindly repeat that question?

Q. Read the question, Mr. Reporter.

(The Reporter reads the question.)

A. I shall have to say I don't know.

Mr. FRANK.—Take the witness. [2163—2075]

Cross-examination.

Mr. McCLANAHAN.—Q. Do you remember, Mr. Wilhelmson, when it was that you testified first in this case? You remember it was last September, do you not? A. Yes, sir, quite awhile ago.

Q. Since your first testimony given on September 11th, 1911, who have you talked with about this case?

A. About this case?

(Testimony of L. Wilhelmson.)

Q. Yes.

A. I read some testimony there. I read my own testimony.

Q. Who have you talked with?

A. Not particularly regarding the case. I don't need to.

Q. That is, you have not talked with anyone?

A. I have read the report of my testimony. That is all.

Q. I am not speaking of what you have read. I want to know whether you have talked with anyone about the case? A. No, sir.

Q. You have talked with Mr. Frank, haven't you?

A. Well, that is all.

Q. Have you talked with Mr. Curtiss?

A. They would all be present.

Q. That is, Mr. Curtiss and Mr. Frank would be present? A. Yes, sir.

Q. Have you talked with Mr. Gray?

A. They have all been present.

Q. Mr. Gray was present? A. Sometimes.

Q. Have you talked with Mr. Christy?

A. No, sir.

Q. With Mr. Eva? A. No, sir.

Q. Then, have I named all that you have talked with? A. I believe so. [2164—2076]

Q. When did you have this talk with these gentlemen, or any of them?

A. A couple of days ago I was asked to appear here, and wait here to appear.

Q. Was it at that time that you had the talk that

(Testimony of L. Wilhelmson.)

you have reference to? A. Yes, sir; that is all.

Q. Had you not had any talk with them before a couple of days ago?

A. I have had no talk whatever. I have been up here reading testimony; that is all.

Q. You have not had any talk with anyone?

A. No, sir; not any more than reading the testimony.

Q. What testimony have you read besides your own?

A. I have read my own and the men from the shop.

Q. Name the men. Who were they whose testimony you have read?

A. I think it was the storekeeper.

Q. Roberts? A. Yes, sir, I think so.

Q. Who else? A. I don't know of anyone else.

Q. You just read the testimony of Wilhelmson and Roberts, the storekeeper; is that right?

A. Yes, sir.

Q. And you have had no talk except the talk that you had a few days ago; is that right? A. Yes, sir.

Q. Is your memory as good to-day as it was six months ago about this work?

A. Every day it becomes far more distant. It is a couple of years since the case was done.

Q. So your memory to-day is not as good as it was six months ago? A. Very near.

Q. Very nearly? A. Yes, sir.

Q. It is not any better, is it?

A. It could not be.

Q. It could not be any better? A. No, sir.

(Testimony of L. Wilhelmson.)

Q. Did this talk which you had with the four gentlemen that you have named assist your memory in any way with reference to the work?

A. No, sir. [2165—2077]

Q. It did not?

A. No, sir, not in regard to anything.

Q. You have some memory to-day, Mr. Wilhelmson, that you did not have six months ago with reference to this so-called compensation work. How did you happen to refresh your memory on that point?

Mr. FRANK.—I do not know how you can make that suggestion; if he has testified that he had no memory six months ago that is a different proposition. And he is entitled to have his attention called to it.

Mr. McCLANAHAN.—Do you want me to call his attention to it?

Mr. FRANK.—Yes.

Mr. McCLANAHAN.—Q. Mr. Wilhelmson, do you want me to call your attention to your evidence given six months ago on the subject? A. Yes, sir.

Q. Mr. Frank, who was representing the United Engineering Works at that time—

Mr. FRANK.—At what page is that?

Mr. McCLANAHAN.—Page 801. Q. Referring to these changes that you have testified about this morning, changes of that character, you were asked by Mr. Frank this question: “Q. What the cause or reason or nature of the changes are you have no knowledge of.” Your reply is “No, sir.” Now, where—

(Testimony of L. Wilhelmson.)

Mr. FRANK.—That is not the whole answer. That is not proper. That is not the whole answer, Mr. McClanahan.

Mr. McCLANAHAN.—I will read the whole answer. “A. No, sir. And I must always see that the proper man in authority makes the changes, sometimes to avoid mistakes and things like that, and see that the numbers are right.” [2166—2078]

Q. Now, your answer to the question put was, “No, sir.” I will ask you where, since September, 1911, you have acquired knowledge that enables you to testify as you did this morning with reference to those changes that you had no knowledge of six months ago?

Mr. FRANK.—I object to that. That is entirely unfair. He has not testified to the changes this time that were spoken of at that time.

Mr. McCLANAHAN.—Put your objection into the record.

Mr. FRANK.—He is entitled to the entire subject matter so that he may know what his answers related to at that time.

Mr. McCLANAHAN.—The witness has stated that within a very short time he has read his testimony over. I do not propose to read all his testimony over. (Addressing the witness.) Answer the question.

Mr. FRANK.—One moment. I suggest that the entire examination be read to him so that he may not be misled into believing that the same changes were being testified to at that time.

Mr. McCLANAHAN.—Q. Answer the question.

(Testimony of L. Wilhelmson.)

Mr. FRANK.—One moment. I am going to read this.

Mr. McCLANAHAN.—Mr. Frank, there is no need of encumbering the record by reading that. If the witness wants to look his testimony over again, I have no objection.

Mr. FRANK.—I want the Court to be put in full possession of the entire subject matter.

Mr. McCLANAHAN.—The Court will have the whole record there. (Addressing the witness.) Do you want to read your testimony over, Mr. Wilhelmson?

Mr. FRANK.—One moment. He is asked: "But you do not know."

Mr. McCLANAHAN.—(Intg.) Mr. Frank, I object to that. You [2167—2079] can make your objection and get it into the record, or you can let the witness read his testimony, but I do not propose to have my examination taken up with your reading from his testimony. It is encumbering the record unnecessarily.

Mr. FRANK.—I do not propose that you shall put an unfair question to the witness like that.

Mr. McCLANAHAN.—I am willing that he should see his whole testimony. There it is (handing).

Mr. FRANK.—There it is, Mr. Wilhelmson (handing). Just begin in the middle of page 800.

Mr. McCLANAHAN.—Mr. Wilhelmson, begin wherever you want to and end where you want to. Your whole testimony is there.

Mr. FRANK.—Begin at page 800, where this sub-

(Testimony of L. Wilhelmson.)

ject is taken up. It is an entirely different proposition from the one he is now testifying to.

Mr. McCLANAHAN.—He has got the suggestion now.

Mr. FRANK.—It is not a suggestion.

The WITNESS.—This is my first appearance in court, gentlemen, and you will have to excuse me.

Mr. McCLANAHAN.—Q. You are all right.

(The witness reads over the testimony.)

Now, Mr. Reporter, read my question over to the witness and he can answer it.

(The Reporter reads the question to the witness.)

A. Gentlemen, right here (pointing) my memory. I had to scratch it up.

Q. Did anybody assist you in scratching it up, Mr. Williamson, or did you scratch it up alone?

A. I scratched it up alone. [2168—2080]

Q. So that you did not know that you were going to testify on the subject of the changes when you came in this morning? A. No, sir.

Q. You did not know? A. No, sir.

Q. Then this talk that you had with these gentlemen did not have any reference to these changes?

A. It never has.

Q. You understand me perfectly, do you, Mr. Wilhelmson? I am referring to the changes that you testified to this morning, where Mr. Klitgaard tried to get you to make changes, and you would not consent to it, as an offset. You understand it?

A. I understand quite well. My position in that matter is I have no authority of the kind, as I prev-

(Testimony of L. Wilhelmson.)

iously testified before, I think.

Q. Yes, you did. But my questions now are directed to your scratching-up, as you term it, your remembrance of those particular changes that you testified to this morning. Do you understand that?

A. Yes, sir.

Q. And you scratched that memory up on that subject without any assistance from anyone?

A. Yes, sir, I may think of a whole lot more details probably six months from now.

Q. Then your memory gets better as time passes, does it?

A. Sometimes a thing may occur to a person's mind.

Q. Nothing has occurred to your mind since your examination in September with reference to these compensation changes so-called, has there?

A. No, sir, that was clear to my mind at all times.

Q. Then why did you not speak about the compensation changes in your first examination in September?

Mr. FRANK.—I object to that because his examination in September had nothing to do with compensation changes. He was not asked about it. It was entirely a different subject at that time. [2169—2081]

Mr. McCLANAHAN.—Q. Answer the question.

A. I was asked on cards and such things as that.

Q. Don't you remember, Mr. Wilhelmson, that you were asked about changes from the original specifications in this work? You said there had been

(Testimony of L. Wilhelmson.)

changes, but you had no recollection of the cause or reason or nature of those changes.

A. The details of them.

Q. You wish to limit it to the details. You had a recollection of the cause, the reasons and nature of the changes in general?

A. There were changes from the original list of work that was given to me from the office. I could only call the firm's attention to changes.

Q. Now, with your memory refreshed or scratched up as you have termed it, will you please tell me with reference to item 2 of the original specifications which you testified to this morning, who of the firm you spoke to about that change.

A. Item 2? What is that? I beg your pardon.

Q. Don't you know what item 2 is that you testified to this morning, without looking at the paper?

A. On the crank-shaft, isn't it?

Mr. FRANK.—You don't know what it is without looking at it. Nobody would except Mr. McClanahan who has been sleeping with it.

Mr. McCLANAHAN.—Q. You don't know then? Look at the paper.

A. You are so well posted on this subject—Great Heavens! I am only a workingman. (After examination.) I understand.

Q. Now, answer my question. A. Yes, sir.

Q. Who of the firm did you speak to about that change? A. At the time of the change?

Q. Yes. A. Mr. Gray. [2170—2082]

Q. Mr. Gray? A. Yes, sir.

(Testimony of L. Wilhelmson.)

Q. By "firm" you mean the United Engineering Works? A. Sure.

Q. Did you speak to him after you had done some figuring on that work? A. About the same time.

Q. That is, you and Klitgaard did some figuring on the change? A. I don't know what he did.

Q. You did some figuring on the change?

A. Yes, sir.

Q. And you spoke to Mr. Gray about it?

A. Yes, sir.

Q. What did Mr. Gray say? Go ahead.

A. Mr. Gray was always averse to that change.

Q. Excuse me, Mr. Williamson; what did he say when you approached him with the figures on this particular figure?

A. It was something to the effect that it was not a fair deal; it involved—

Q. Are you giving his words, now?

Mr. FRANK.—He is giving the substance.

Mr. McCLANAHAN.—Q. The substance?

A. The substance. It is utterly impossible to repeat words.

Q. Give the substance. What did he say?

A. The difference would be too much. It involved not only the balance cylinder but two valve-stems, and a lot of other work gathered up inside of two or three days. It was more than first asked for.

Q. What do you mean by "gathered up inside of two or three days"; you are giving me Mr. Gray's words, the substance of them? A. Yes, sir.

Q. What do you mean by "gathered up inside of

(Testimony of L. Wilhelmson.)

two or three days''?

A. At first a balance cylinder was proposed.

Q. Now, Mr. Wilhelmson—

Mr. FRANK.—Allow the witness to answer, Mr. McClanahan. [2171—2083] When you ask him a question don't interrupt him. He is an ordinary workingman who cannot compete with you in the matter of disputation. Give him a fair chance to get his thoughts together and answer the question. You will get him so mixed up that he will not know whether he is on his head or his feet.

Mr. McCLANAHAN.—Q. I want to keep you perfectly straight to answer my question; that is why I am interrupting you.

Mr. FRANK.—You were making a suggestion to him that would not have kept him straight if he had adopted it.

Mr. McCLANAHAN.—Q. I am afraid you are confused in answering my questions. You had several conversations with Mr. Gray. I want you to confine yourself to the time you went to him after having figured on this change proposed by Klitgaard, the first time you went to him. Tell me the substance of what he said at that time.

A. The substance of it was that it was not a fair deal.

Q. That is was not a fair deal? A. Yes, sir.

Q. Anything else? Confine yourself to that first conversation. If you cannot think of anything else, say so.

A. That is about all.

(Testimony of L. Wilhelmson.)

Q. You, Mr. Wilhelmson, when you went there with your figures to him, thought it was a fair deal, didn't you?

A. The first half hour when I spoke of the change, yes. Inside of half an hour it was added on twice as much.

Q. Now, I am speaking and confining myself to the first time when you approached Mr. Gray when he said it was not a fair deal. A. Yes, sir.

Q. You, when you went to him that time with your figures, thought it was a square deal, didn't you. By fair deal I mean a fair exchange in the work?

A. No, sir.

Q. You did not? A. No, sir. [2172—2084]

Q. What did you go to Mr. Gray, then, for with the deal, or with the suggestion that that was not fair?

A. I did not need to go. Mr. Klitgaard goes to him for that.

Q. I thought you said you went to Mr. Gray?

A. When I was called attention—they called me up on the subject, yes.

Q. Did you not approach Mr. Gray before Mr. Klitgaard, on that subject, the subject of the balance cylinder change?

A. Both together and separately.

Q. I am talking about the first time you went there, the first time you spoke to Mr. Gray. Were you not alone when you spoke to him?

A. I don't know.

Q. You cannot answer that? A. No, sir.

Q. Is this not the proposition—is this not the cor-

(Testimony of L. Wilhelmson.)

rect version of the whole matter? You figured out Mr. Klitgaard's suggestion of a change, and you satisfied yourself that that change could be fairly done and made as far as the United Engineering Works was concerned, and then you went to Mr. Gray to get his approval, did you not? Is not that a fair suggestion?

A. It is my duty to go for an approval, as I have no right to change it.

Q. I say you got the figures all figured out in your own mind so that you were convinced it was a fair proposition and then you went to Mr. Gray with it; is not that a correct suggestion?

A. I left the decision to them as long as it did not lay on my shoulders.

Q. Exactly. The decision was left to Mr. Gray, but you went to him with the figures that you thought were fair?

A. The question of the fairness depended upon Mr. Gray to judge. [2173—2085]

Q. They were fair in your mind, were they not?

A. Too much addition became added on.

Q. I am speaking of the original figures. They were fair, in your mind, were they not?

A. Hardly.

Q. They were not fair? A. No, sir.

Q. Hardly fair? A. Yes, sir.

Q. Were they unfair to the United or unfair to the Matson Navigation Company?

A. Much more work involved for us people.

Q. Much more work involved for you?

(Testimony of L. Wilhelmson.)

A. Yes, sir.

Q. Are you now referring to the figures that were made before any additions were added to them?

A. My own opinion in the first go-off was, it was not fair.

Q. So you are now referring to your figures that were made before there were any additions. Is that right? A. That is correct.

Q. Then, after that, Mr. Wilhelmson, after Mr. Gray had told you that the figures were unfair, you then went to him again, did you, with other figures?

A. Inside of half a day or a day it accumulated more work.

Q. And you went to Mr. Gray again?

A. It became a larger job.

Q. You went to Mr. Gray again, I say, after there were additions? A. I had to.

Q. What did you go to Mr. Gray again for?

A. To tell him about extra changes, additional valve stems to lengthen.

Q. Had you and Klitgaard come to an understanding about the original changes?

A. No, sir, I made no arrangements—I made no changes.

Q. You went to Mr. Gray with the original proposition from Klitgaard with your own figures, and you and Mr. Gray turned that [2174—2086] down did you, and would not accept it?

A. I did not turn anything down. Mr. Gray did the turning down and gave me fits at the same time.

Q. He gave you fits at the same time?

(Testimony of L. Wilhelmson.)

A. Yes, sir.

Q. Did you go back and tell Klitgaard?

A. No, sir, I keep those things to myself.

Q. Didn't you tell Klitgaard that Mr. Gray turned it down?

A. I guess he was notified personally.

Q. You did not notify Klitgaard that Gray had turned it down?

A. I don't know that I did.

Q. After you went back, the work was commenced, was it, the work on the balance cylinder?

A. The work was commenced some day or so after.

Q. And Mr. Klitgaard did not know from you that Mr. Gray had turned it down?

A. I don't know what the arrangement was between them. I was told to go ahead and put in a balance cylinder.

Q. Who by? A. By the firm.

Q. Which member? A. Mr. Gray.

Q. Mr. Gray told you to go ahead and put it in, did he? A. Yes, sir.

Q. After he turned the price down with you?

A. I was told to get out drawings for the balance cylinder.

Q. That was after he had turned down the proposition that you originally put to him?

A. Yes, sir, after. They started the work on the cylinder after all this talk on the cylinder.

Q. After Gray had turned down the proposition originally did you ever have any talk with Klitgaard about this compensation work on the cylinder?

(Testimony of L. Wilhelmson.)

A. Oh, those people bothered me all the time about that, Mr. Klitgaard and—

Q. (Intg.) Bothered you all the time about what? About making the changes? [2175—2087]

A. About changing the list of work.

Q. I am talking about the balance cylinder; did he bother you all the time about that?

A. No, sir; no one bothered me. They started in to do the job.

Q. We will now take up this question of the patch for the collar. A. Yes, sir.

Q. You figured on that patch, didn't you?

A. No, sir.

Q. Did you figure on—

A. I did not need to figure on it.

Q. Did you figure on item 7?

A. I figured on this here (pointing).

Q. You figured on item 7?

A. This was done in an estimate through the office.

Q. You did not figure on it then, or did you figure on it? A. I was asked an opinion on it; yes.

Q. So, when these specifications were brought into the office first you figured on some of them, did you?

A. Sometimes my opinion is asked.

Q. Do you remember it being asked in regard to this column? A. Oh, yes.

Q. And you gave your opinion, did you?

A. I gave my opinion.

Q. Who did you give it to?

A. It was long before the job commenced, to Mr. Gray.

(Testimony of L. Wilhelmson.)

Q. Did you give it to anybody else?

A. No, sir-ee.

Q. Do you know whether Mr. Gray took your figures? A. I don't know at all.

Q. You don't know? A. No, sir.

Q. He asked you to give him a figure on it?

A. He asked my opinion of what it would be worth.

Q. Now, coming back to the so-called compensation work for that column job, the bronze patch—who figured on that work? [2176—2088]

A. A patch was proposed instead of the column.

Q. I am asking you who figured on it.

A. Mr. Gray did.

Q. Mr. Gray figured on it? A. Yes, sir.

Q. Did he do it in your presence?

A. I don't think so; no.

Q. Then, how do you know he figured on it?

A. He is the man who quoted the figure.

Q. Quoted the figure to whom? Who did he quote the figure to?

A. He quoted the figure on the patch; I don't know as he quoted to anybody, only what I heard about it was that the patch was a very costly job; in fact, Mr. Gray was against the patch. He favored the column.

Q. Who was in favor of the patch—were you?

A. No, sir, I was neutral in that position.

Q. Who was in favor of the patch?

A. Mr. Klitgaard, I presume.

Q. Anyone else? A. I don't know.

(Testimony of L. Wilhelmson.)

Q. Now, you say Mr. Gray figured on it—did he quote that figure to Mr. Klitgaard?

A. I don't know whether he did or not.

Q. Did you see the figure? A. No, sir.

Q. And you yourself never figured on the bronze patch?

A. I thought of it well enough at the first glance to see an approximate cost of it. I didn't make any pretense of—I looked to—

Q. (Intg.) Your answer is that you did not figure on it?

Mr. FRANK.—Go on and finish what you have to say, Mr. Wilhelmson.

A. The proposition about the patch looked altogether too large to me as compared with the column.

Mr. McCLANAHAN. — Q. Were you present when Mr. Gray had a talk with Mr. Klitgaard about the patch before it was decided upon? [2177—2089]

A. I was in the engine-room when the question of the column or patch, or the merits thereof was suggested and argued, but I was not present when any decision was made, with the exception that I was told to make a patch.

Q. Was not the patch decided upon at this argument that you say you were present at?

A. I will tell you; it must have been decided at that time because that very night I began the work.

Q. Now, what is your best recollection, Mr. Wilhelmson, of that conversation, when the patch was discussed and decided upon? What is your best recollection of that conversation?

(Testimony of L. Wilhelmson.)

A. I understand it to be that Mr. Klitgaard spoke of a patch to cover the crack. Mr. Gray spoke very highly of a column as taking better care of the stresses up to the cylinder. He spoke in favor of the column most of the time in my presence and the others were in favor of a patch, Mr. Klitgaard and—

Q. (Intg.) Mr. Putzar?

A. He probably was asked an opinion from Mr. Klitgaard, for all I know.

Q. Mr. Saunders—was Captain Saunders there?

A. Captain Saunders was there in the engine-room at the time. I did not hear Captain Saunders quote upon the subject.

Q. Well, have you given us all of the conversation that you can recollect?

A. The conversation on that patch did not have anything to do with me. I did not hear the final arrangements any more than I was told to go ahead and put on a patch.

Q. Who told you that—Mr. Gray?

A. Mr. Gray.

Q. Mr. Wilhelmson, how much of time did Mr. Gray spend around the job there during its progress?

A. Well, he was a frequent visitor there. He did not stay the whole day by any means; he generally used to devote a couple of hours in the morning and give me all kinds of talk, and how [2178—2090] we were progressing with the work, asked me about it, and I have seen him a number of times down there in the evening.

(Testimony of L. Wilhelmsen.)

Q. I understand you had no authority to make any change. A. I had not.

Q. I understand that a great many changes were constantly day by day cropping up; is that correct?

A. From the original list that I got to go ahead with?

Q. Yes. A. Sure.

Q. Did you go ahead and make those changes without consulting Mr. Gray?

A. They were hung up several times until he came there.

Q. You would never make any change until Mr. Gray came there; is that the idea?

A. I would consult him about it.

Q. Answer the question. You would never make any change until Mr. Gray would come?

A. Or Mr. Christie.

Q. And if a change bobbed up while they were absent, the job was hung up until they came there?

A. It was always with one of the firm around the yard—

Q. (Intg.) Answer my question. The job was hung up until you could consult with Mr. Gray or Mr. Christy?

A. No, sir, it did not necessarily need to be hung up.

Q. You went on with the job and afterwards secured their approval?

A. Not even so; I could begin work when they had talked it over. It did not necessarily mean to hang the job up. I would have a man there inside of half

(Testimony of L. Wilhelmson.)

an hour or an hour, either one of the firm.

Q. When who had talked it over you would begin the work?

A. If I spoke either to Mr. Christy or Mr. Gray.

Q. I know that, but you could not begin the work until you had spoken to Mr. Christy or Mr. Gray?
[2179—2091]

A. Very true, but that would not take very long. There was always either one present in the yard.

Q. Whether it was long or short, you never did commence the work on any of those changes until you had spoken to one or the other of these two men; is that correct? A. No, sir.

Q. So there were times when you would commence work on change work on the specifications without speaking to Mr. Christy or Mr. Gray; is that correct? A. That is not right.

Q. Put it your own way and let us get it right. What is it? Would you always, or would you not always speak to Mr. Gray or Mr. Christy before you commenced the work?

A. I would always speak to Mr. Christy or Mr. Gray and I would even do it to this day. I always do it.

Q. Always? A. Yes, sir.

Q. And if Christy or Gray should happen to be away what would happen? Would you hold the work up?

A. Very frequently, at that time there was either one of them there all the time.

(Testimony of L. Wilhelmson.)

Q. If they happened to be away would you hang it up?

Mr. FRANK.—It is immaterial what he would do. He says they were always there all the time.

Mr. McCLANAHAN.—The record will show whether they were always there.

Mr. FRANK.—It is immaterial what he would do in another case.

Mr. McCLANAHAN.—I will withdraw that question; it seems to worry counsel.

Mr. FRANK.—No, it does not worry me any more than any other foolish story that comes up.

Mr. McCLANAHAN.—Q. Mr. Wilhelmson, are you willing to [2180—2092] swear that either Mr. Gray or Mr. Christy were during the repairs on the “Hilonian,” always there ready to advise you with reference to changes made from the specifications at the time the changes came up?

A. Yes, sir, I am willing to, if you give them the grace of half an hour.

Q. That is, within half an hour they were always there? A. I suppose so.

Q. Then these changes that were made were made with the sanction of either Mr. Christy or Mr. Gray?

A. The firm knew it.

Q. One or the other?

A. One or the other knew it.

Q. Knew of these changes when they were made?

A. Yes, sir.

Q. And they consented to those changes?

A. I don't know that.

(Testimony of L. Wilhelmson.)

Q. You don't mean to say that you would change a piece of work in a specification without their consent, would you?

A. I am there as a mechanical man and to follow up a set of specifications; and if there is a change I have to call attention to it. If I am told to go ahead with the work I go ahead. If there is any change to come up, why let the office do it.

Q. And in every case where there was a change made from these specifications, you were told to go ahead with that change, either by Christy or Gray?

A. I got notification from the office.

Q. Yes, to go ahead with that work?

A. Yes, sir.

Q. And every time there was a change made from the specifications, Mr. Klitgaard consented to the change, did he not?

A. He is the man who proposed the changes.

Q. Then he consented to it? A. I hope so.
[2181—2093]

Q. Now, Mr. Wilhelmson, about this bending-slab. How many hours' work was put on the bending-slab for the protection-plates? A. I don't know.

Q. Cannot you now, as a skilled mechanic, tell us?

A. As a skilled mechanic? Thank you very much for the compliment.

Q. Are you not? I take it for granted that you are.

A. I have had the honor to make my living as a mechanic a good many years. I thank you for the compliment.

(Testimony of L. Wilhelmson.)

Q. Well, you occupy a responsible position, don't you? You are the general foreman, are you not?

A. Yes, sir.

Q. Cannot you tell us approximately how much use of the bending-slab would be made on the protection-plates, how many hours?

A. On this job?

Q. On this job?

A. In the absence of some records, I should like to know how many protection-plates there were put on exactly.

Q. By the way, did you have anything to do with that job at the stern? A. I see most of the jobs.

Q. Under who directly, was that work?

A. Mr. Taylor and Mr. Hurley.

Q. Did they report to you?

A. Not necessarily.

Q. I asked you if they did. A. Report?

Q. Report to you on the work?

A. I know the job was done.

Q. Did they report to you on it?

A. I see it done. I see that shoes were put on.

Q. Have you any knowledge now of how the job was done? A. Yes, sir, I have.

Q. You know the bending-slab was used?

A. Yes, sir.

Q. The job could have been done without the bending-slab, could it not? [2182—2094]

A. Pretty tough.

Q. What is that?

A. Kind of hard without it.

(Testimony of L. Wilhelmson.)

Q. Why?

A. The plates were knuckled in the rolls, and then they were heated and put on the slab to get the curve.

Q. I am asking you if it could not have been done without putting them on the slab after they were heated.

A. If they were cut all to pieces; yes.

Q. Was this cut all to pieces? A. No, sir.

Q. Then you do know something about the details of the job?

A. How the shoe was made, yes.

Q. Then tell me how much time was put on the bending-slab.

A. The time-cards will show that.

Q. I will reform my question. How much time would ordinarily be required for the use of a bending-slab on that work?

A. On a shoe of that kind?

Q. Yes.

A. The variation of that is a great deal. It may vary all the way from half a day to a couple of days. different natures of jobs.

Q. And that is as near as you can come now to telling me the requisite time to do that work on the bending-slab?

A. As it was entirely under Mr. Hurley and Mr. Taylor's jurisdiction, they did the job.

Q. Are they going to testify, do you know?

A. I don't know.

Q. You don't know? A. No, sir.

Q. When you say half a day to a couple of days, you mean four hours to 24 hours—four hours to 16 hours?

(Testimony of L. Wilhelmson.)

A. I have seen shoes that have taken a four days' job.

Q. I am not curious to know what you have seen. You testified that it varied from half a day to a couple of days?

Mr. FRANK.—He said three days.

A. Yes, sir. [2183—2095]

Mr. McCLANAHAN.—Q. It was say three days—you mean four hours to how many hours—24 hours?

A. To do the work 24 hours on a stretch we would call it days.

Q. That is three days of eight hours each?

A. Yes, sir.

Q. Then you mean four hours to 24 hours?

A. Yes, sir, that time would be worked a little longer than 8 hours.

Q. Now, you are not referring in your testimony to that particular work? A. No, sir.

Q. The bending-slab was used on the smokestack, was it not?

A. Not on the smokestack proper. That smoke-stack was rolled in the rolls.

Q. Then the bending-slab was not used on anything but the protection plates?

A. It might be used on the angle-irons.

Q. What angle-irons do you refer to?

A. The base of the stack.

Q. Anywhere else? A. And angles.

Q. Where?

A. Angles around the base of the stack uptake.

(Testimony of L. Wilhelmson.)

Q. Anywhere else?

A. That would cover it all in that vicinity.

Q. That is the only other place that the bending-slab was used, was it not, on the angle-irons, around the smokestack, the uptake and on the protection plates?

A. That is a pretty long back question to remember, and when the bending-slab fire was used.

Q. You don't remember any other place then?

Mr. FRANK.—That is not fair. Give him a chance while he is talking.

Mr. McCLANAHAN.—Q. Have you exhausted your memory? A. Probably not exactly so.

Q. Take your time.

A. Some angles were made around the gratings—some angles in the gratings there. [2184—2096]

Q. What gratings? A. In the engine-room.

Q. Do you remember that?

A. There was new angle-irons put up there, yes.

Q. I asked you if you remembered it?

A. I remember some new angle-irons up there.

Q. You remember that that slab was used on that angle-iron work?

A. The slab would be used on the curves, and the angle-irons of the blacksmiths on ordinary joggles could be used at both places.

Q. I am asking you if you remember that it was so used on the gratings. A. I don't know.

Q. You don't remember? A. No, sir.

Q. Have you exhausted your memory now as to the use of the bending slab?

(Testimony of L. Wilhelmson.)

A. I will have to say that unless I keep you gentlemen here waiting too long.

Q. Well, take your time.

A. I will put it that way.

Q. You have exhausted your memory?

A. The time is long ago.

Q. The answer is "Yes." Then you have? Speak up. A. Yes, sir.

Q. I want to get it in the record. Then all that you remember about the use of the bending-slab is around the angle-irons to the smokestack and uptake and around the protection plates and on the protection plates; that is correct, is it? A. Yes, sir.

Q. How long would it require the use of the bending-slab for the smokestack and the uptake angle-irons if properly used?

A. That job was under other people's supervision. I could not exactly say that.

Q. Give us a figure on it now. I am not asking for the time [2185—2097] that was spent with the bending-slab, but I am asking how long should have been spent.

A. This is all history to me. You cannot expect that I should remember every place where a slab was used.

Q. Give us an approximation.

A. A couple of days.

Q. That is 16 hours? A. A couple of days.

Q. You mean by that 16 hours, or what do you mean by a couple of days—16 hours? A. Yes, sir.

(Testimony of L. Wilhelmson.)

Q. Now, I want you to go back to the protection plates and the use of the bending-slab on the protection plates, and give us a fair general statement of the extreme limit for the use of the bending-slab on that work. Would you place it at three days or four days or five days, or what number of days as the very extreme?

A. As long as it is extreme put it five days.

Q. And that would be under most unusual circumstances, would it not, to use 40 hours on the bending-slab for those protection plates? A. Yes, sir.

Q. Do you know how long it took to shape the protection plates and put them on?

A. If I had known that I would have informed you long ago.

Q. I am not speaking now of the use of the bending-slab alone, but did not the whole job consume less than four days, bending the plates and putting them on?

A. You know although a job may be done in a day it may be two days' work, having a couple of men or three on the job.

Q. That does not answer my question. I am directing your attention now to the whole job of making those plates and putting them on; could not that job have been done in less than four days, the whole thing? [2186—2098]

A. I don't know whether it could or not.

Q. What is your best judgment in the matter?

A. That is all right.

Q. By "that is all right" you think it could?

(Testimony of L. Wilhelmson.)

A. Yes, sir.

Q. You spoke, Mr. Wilhelmson, of some work being done to the wheel while it was on the barge.

A. Yes, sir.

Q. That wheel was the wheel that was furnished by the Union Iron Works, was it not? A. Yes, sir.

Q. This work was done before the "Hilonian" went into drydock, was it not? A. Yes, sir.

Q. And what class of men worked on that wheel on the barge? A. Machinists and laborers.

Q. How long did the job consume of truing the keyway, approximately?

A. I don't know. It was all hand work, filing.

Q. I am not asking for the character of the work. I am asking you for the approximate time.

A. I don't know.

Mr. McCLANAHAN.—That is all.

Mr. FRANK.—That is all.

(An adjournment was here taken until to-morrow, Wednesday, May 8th, 1912, at 2 o'clock P. M.) [2187—2099]

Wednesday, May 8th, 1912.

[Testimony of John Herbert Hopps, for Libelant (in Rebuttal).]

JOHN HERBERT HOPPS, called for the libelant, in rebuttal, sworn.

Mr. FRANK.—Q. What is your business, Mr. Hopps?

A. At present I am a consulting engineer.

Q. How long have you been a consulting engineer?

A. 12 years.

(Testimony of John Herbert Hopps.)

Q. Give us a résumé of your education and training for that position.

A. I took a course in mechanical engineering at the University of Leeds, England. Subsequent to that I was articulated to a firm of engineers there with whom I spent five years learning the business of course. After that I came to San Francisco. I first worked for the Pacific Iron Works as a draughtsman. After leaving them I went to the Joshua Hendy Iron Works where I was employed for some time as a draughtsman and subsequently as superintendent of the works. I left them and became chief draughtsman for the Fulton Iron Works, by whom I was employed until the time I went into business for myself. Since then I have practiced as a consulting engineer in San Francisco handling work of varied character. In addition to engineering I am now engaged in contracting.

Q. And this business of consulting engineer you carried on, you say, for 12 years in San Francisco?

A. About 12 years. I do not remember exactly.

Q. In that business have you had any experience in the matter of estimating repairs on ships and vessels?

A. Some; yes. For some time I had charge of a number of steamers in operation from this port. It was frequently [2188—2100] necessary to make repairs on these vessels, and it was sometimes my duty to estimate the cost of the necessary repairs.

Q. Outside of vessels have you had any experience in estimating generally as an engineer?

(Testimony of John Herbert Hopps.)

A. A good deal. During the time I was at the Hendy Machine Works I did most of the estimating that was done there. I did some estimating whilst I was with the Fulton Iron Works, and at the present time I am constantly estimating on engineering work.

Q. What, if anything, Mr. Hopps, can you say about the ability of anyone, engineer or otherwise, to make an estimate of the cost of work performed upon a vessel after the work has been performed by seeing part of the work that has been performed, and by having part of it that he could not see described to him? A. I suppose you refer to repair work?

Q. To repair work.

A. I should say that it was very difficult indeed to make estimates under the conditions described.

Q. It would not be very difficult to make an estimate. The question is whether or not an estimate that would have any degree of value for accuracy could be made.

A. I should not put much confidence in an estimate made under those conditions.

Q. Now, will you state in detail why?

A. The cost of repair work generally is very largely labor. Under any circumstances it is a very difficult matter to estimate the amount of labor that will go into any piece of work. It is impossible to know how much work any workman will do in a given time. The conditions under which the work [2189—2101] is done affect the amount that goes into it. Unless you know exactly the conditions under which

(Testimony of John Herbert Hopps.)

the work is to be done, and have experience—have exact information, not experience—as to the cost of similar work done under exactly the same conditions, it is not possible to estimate the amount of time it will take with any degree of accuracy.

Q. What are the conditions that you refer to? Give us some detail or illustration, that could not be ascertained by any person examining the work.

A. Firstly, the man examining the work could not see the condition that prevailed in the vicinity of the work at the time it was done. To do the work might have required the removal of parts of machinery, cargo, dirt, debris, and other matter. The work might have needed special appliances of tools, staging, etc., all of which would require time to procure. The men engaged on the work may have been tired from working long hours on other jobs, or they may have been poor workmen, and inefficient. Owing to circumstances it may not have been possible to oversee the work closely, and time may have been wasted unnecessarily.

Q. How about the location and position in which the men would have to work? Would that affect it any?

Mr. McCLANAHAN.—I object to the question as leading.

A. Yes, sir; it would, of course. Work carried on in places where it is necessary to work in a very confined space is necessarily very much more expensive than in places where ample room is available. If a man has to work in an awkward position the

(Testimony of John Herbert Hopps.)

work is very much more fatiguing than if he can work in a natural position, and the amount of time required consequently greater. [2190—2102]

Mr. FRANK.—Q. What is the general experience with respect to the variation in the cost of labor in two different apparently similar jobs?

Mr. McCLANAHAN.—I object to the question on the ground that the witness has not shown himself to be qualified to answer the question.

Mr. FRANK.—Q. Go on, Mr. Hopps.

A. My experience is that labor will vary to an unaccountable extent on similar jobs.

Mr. McCLANAHAN.—Q. You mean the cost of labor?

A. The cost, or the amount of labor. Put it whichever way you wish.

Q. Which is it you mean? The question is directed to cost.

Mr. FRANK.—Excuse me, Mr. McClanahan. The witness is speaking now.

Mr. McCLANAHAN.—I want to know what he is speaking about.

Mr. FRANK.—If you will allow me to examine him you will know. If you have any doubts about it you can cross-examine him afterwards.

Mr. McCLANAHAN.—I don't want to object to the question, but when it is put to cost alone I do object to it. There is no qualification.

Mr. FRANK.—Q. As to the cost of labor, independent of the variation in wages—that is what we want to get at.

(Testimony of John Herbert Hopps.)

A. As to the cost of labor independent of the variation in wages my answer stands as it was made. That is what I understood the question to mean in the first instance.

Q. That is, a greater length of time would be consumed in doing a specific piece of work than could possibly be anticipated. [2191—2103] Is that the idea?

A. What I meant by my answer was that in two jobs apparently the same amount of time consumed in doing one would be very much larger than the amount of time consumed in doing the other, without any apparent reason for it.

Q. Is that the common experience in the business?

A. It is.

Q. Now, among engineers and people engaged in estimating the cost of work, do you know whether or not there ever has been any attempt made to fix or standardize this cost by experience?

Mr. McCLANAHAN.—I object to the question as being immaterial, and not rebuttal.

A. Yes, sir. A great deal of study has been devoted to the question of determining the labor cost of all manufactured articles.

Mr. FRANK.—Q. In what way?

A. By keeping careful records of the time consumed in all the various portions that go to completing a piece of mechanical work.

Q. Can you give us any instance?

A. By keeping records of the conditions under which the work was done; in fact this has become a

(Testimony of John Herbert Hopps.)

science; it is called cost keeping.

Q. And what is the result?

Mr. McCLANAHAN.—The same objection.

A. I do not quite understand that question, Mr. Frank, as to what is the result. Will you explain it?

Mr. FRANK.—Q. Whether they have been enabled to arrive at any satisfactory result so as to make any satisfactory [2192—2104] estimates of the cost of labor upon a particular job that they are about to undertake, or which has been already completed, without attending at the time and being familiar with all the conditions under which the particular piece of work has been done?

A. In certain kinds of work such as manufacturing operations involving the making of a very large number of parts all of the same kind, by the same men, they have been enabled to determine the cost within a comparatively reasonable percentage.

Q. Would that apply to a new piece of work like a repair job on a ship, as in the present instance?

A. It does not apply to such work as repair work on ships.

Q. Is there anything in your opinion, Mr. Hopps, in the fact that the estimate has been made upon work that has already been done, part of which can be seen, and part of which cannot be seen, which would render it any easier to make an accurate estimate of that work than could be made of work proposed but not already done? A. No, sir.

Q. Would you consider them in the same category in that respect? A. Yes, sir.

(Testimony of John Herbert Hopps.)

Q. What would you say, Mr. Hopps, of a man's ability to make estimates where he has not had the opportunity of comparing the actual cost of the particular work upon which he has estimated after it has been completed, with the estimate that he has made?

A. Do I understand by that, that he has never had the opportunity to compare the cost of the work completed with his estimate [2193—2105] on the cost before it was done?

Q. Yes, or he has not been in the habit of comparing it.

A. I do not see how such a man could estimate correctly at all. It is absolutely essential, if a man is to do estimating, that he must constantly compare his estimates with the cost of the work as it is carried on. Only in this way can he become an accurate estimator.

Q. When you speak of an accurate estimator, do you mean that even by that process he could ever place himself in a position where he could estimate a repair job on a ship with any degree of accuracy?

A. I do not think it is ever possible to estimate repair work on board ship with any degree of accuracy.

Q. What is the practice of engineers engaged in the work of estimating with respect to the preservation of the detail figures by which the amount of any particular piece of work is arrived at?

A. In well-managed shops, all the time consumed in doing any particular piece of work is segregated and recorded.

Q. I am not speaking now of shops. I am speaking now of an engineer, or estimator, or consulting

(Testimony of John Herbert Hopps.)

engineer, when he estimates on a piece of work what the cost is going to be, or who estimates on a piece of work already done, what the cost should have been in his opinion. What is the practice with respect to preserving the detail figures by which he arrives at the result of the cost of any particular piece of work?

A. He preserves all the information he can get pertaining to the execution of the work in question, such as the hours of [2194—2106] labor put into each item.

Q. That is the hours of labor that he figures into each item. Is that what you mean?

A. No, sir; that is not what I mean. You asked me what steps he takes to preserve the record of cost.

Q. Not the record of the cost of work performed, but I mean when he is figuring.

A. You mean what he does when he makes an estimate. Is that it?

Q. That is what I mean, what he does with the detail figures that go to make up his estimate.

Mr. McCLANAHAN.—I object to the question, and all this line of examination, on the ground that it is not rebuttal, and is immaterial.

A. He records his detail figures in a book, or on forms provided for the purpose, and files them away for future reference.

Q. Are those figures such as would enable him in case he is asked to reproduce his estimate, to so reproduce his estimate in detail, and show the details by which he arrived at the various sums?

(Testimony of John Herbert Hopps.)

Mr. McCLANAHAN.—I object to the question as immaterial and not rebuttal.

Mr. FRANK.—We will assume this is all objected to.

Mr. McCLANAHAN.—No, I will make my objections as the opportunity presents itself.

Mr. FRANK.—Very well.

A. They usually are.

Q. I will show you now a document which is called "Respondent [2195—2107] Heynemann Exhibit No. 4," and also "Libelant's Exhibit Heynemann No. 3," and ask you to examine those, and state whether or not those are such figures and details as are usually preserved by engineers who are called upon to make such estimates. (Handing.)

Mr. McCLANAHAN.—I make the same objection,—immaterial and not rebuttal.

A. From a cursory examination I should say that these documents form part of such data as you refer to.

Q. Make a further examination, Mr. Hopps, because I will follow it with another question.

A. (After examination.) I understand better now what these are. Do you want me to tell you what they are?

Q. Yes. A. This note-book contains—

Mr. McCLANAHAN.—Wait a moment.

Mr. FRANK.—Q. We do not care what it contains, Mr. Hopps. The question is whether or not that is what you mean by the details of the estimate that would be preserved.

(Testimony of John Herbert Hopps.)

A. No, sir; this is not what I mean. This is just a list of the work done with sketches in some cases to illustrate the work.

Q. That is Exhibit No. 3?

A. Exhibit No. 3 and Exhibit No. 4 contains a column of figures giving the value of each of the items mentioned in this book by number. The steps by which that price or value is arrived at is not given.

Q. That is when you speak of the value, for instance take item No. 1, \$800, and No. 2, \$25?

A. Yes, sir.

Q. And in those figures there is still a detail preserved [2196—2108] by engineers to show how those several figures are arrived at?

A. Usually; yes.

Q. Whether that is the usual and common practice among estimators and engineers. A. It is.

Q. What is the principal element, Mr. Hopps—you may have already stated it, but I desire to make sure of it—in the cost of any such work?

A. Do you mean by that—

Q. (Intg.) As compared between labor and material.

A. In repair work labor is, in nearly all cases, by far the larger item.

Q. In your experience, what can you say as to the extent of the variation in estimates arising from the varied conditions of labor as applied to a particular piece of work?

A. Do I understand by that, you mean as to the

(Testimony of John Herbert Hopps.)

variation between the actual cost and the estimated cost?

Q. That is what I mean.

A. Well, I have seen very wide variations.

Q. Give us some idea of the extent to which those vary when the estimates are made by what are called skilled mechanics?

A. I don't know that I can give you specific cases just now, but I have known the labor to be double the amount estimated on, and even more than that in some instances.

Q. What is the use of a sliding scale, as made in a sliding scale in estimating?

Mr. McCLANAHAN.—I object to that as not rebuttal and immaterial.

A. I do not know what you mean by a sliding scale, Mr. Frank.

Mr. FRANK.—Q. I do not mean a sliding scale. I mean a [2197—2109] slide scale. I think that is it. A. Do you mean a slide rule?

Q. Yes, a slide rule.

Mr. McCLANAHAN.—The same objection.

A. A slide rule is a labor-saving device. It is an instrument used to make multiplication and division, extracting roots, and raising numbers to any power, finding the logarithm, and performing lots of mathematical operations expeditiously.

Mr. FRANK.—Q. Then they are not essential at all in the work of estimating, only a mere convenience; is that right? A. That is all.

(Testimony of John Herbert Hopps.)

Q. There is some question made in this case as to whether or not a certain piston rod was ground off or not, based on the fact the tool-marks are said to have been left remaining on the piece. State whether or not that is any indication to determine whether or no such work had been done.

A. I do not think it is necessarily an indication. The rod might have been ground slightly, but not sufficiently to remove the tool-marks.

Q. If an estimator saw a piece of shafting, for instance, turned up in a finished condition, and filed down, and oil-stoned, could he from that make any estimate of the time or labor that was necessary to grind down the corrugations, or the pittings, on that piece of work?

A. I suppose you mean if he saw a piece of shafting that was said to have had corrugations in it before the work was touched?

Q. That is, after the work was done?

A. No, sir, of course he could not.

Q. Could he form any idea at all on the subject?
[2198—2110] A. None whatever.

Q. State whether or not that or similar conditions running throughout a large piece of repair work could be in any wise estimated, after the work had been performed.

A. It could not be estimated with any degree of accuracy.

Q. With respect to the driving of rivets in an old piece of work, and the replacing of new rivets after the work had been performed, could a person view-

(Testimony of John Herbert Hopps.)

ing the work form any idea of the length of time and the amount of labor required to drive those old rivets and to install the new rivets?

A. No, sir, he could not. Old rivets are sometimes very difficult to remove. Sometimes they come out easily. It is imposible to tell unless you see the rivet taken out how much time would be consumed in its removal.

Q. In respect to driving bolts out of the shaft, the parts connecting the parts of the shaft, or reaming out the bolt holes, could anyone determine the amount of labor, and the length of time required to drive such bolts, or to ream out the bolt holes?

A. Not without knowing exactly the conditions of the bolts in the holes before the work was done, and even then any estimate would be very uncertain, a little more than a guess.

Q. Where work is being performed under a time limit, and men are working overtime upon the work, can any estimate with any accuracy be made as to the length of time, and the amount of labor necessary to complete such work? A. No accurate estimate.

Mr. FRANK.—Take the witness. [2199—2111]

Cross-examination.

Mr. McCLANAHAN.—Q. Mr. Hopps, as a consulting engineer, have you ever accepted employment as an estimator upon marine repair work?

A. No, sir.

Mr. McCLANAHAN.—Call your next witness. I have no further cross-examination.

(Testimony of John Herbert Hopps.)

Redirect Examination.

Mr. FRANK.—Q. Why not, Mr. Hopps?

A. It is not customary to employ consulting engineers as estimators on marine repair work.

Q. Have you estimated on marine repair work, Mr. Hopps? A. I have.

Q. By your answer, then, you simply meant to say, as consulting engineer you never have accepted any such work.

A. I understood the gentleman to mean by his question had I accepted employment for the specific purpose of making estimates on marine work. I have not. I do not know of anyone else who ever did either.

Q. But you have estimated upon marine work?

A. In conjunction with other details.

Mr. McCLANAHAN.—Q. Have you ever been employed to estimate on marine repair work?

A. For the sole purpose of estimating, do you mean?

Q. Yes, put it that way.

A. For the sole purpose of estimating, no, I never have.

Mr. FRANK.—Q. I understand your answer to be that you have been employed to make those estimates in conjunction with the work that was to be done. Is that right? A. Precisely.

(An adjournment is here taken until to-morrow morning, Thursday, May 9th, 1912, at 10 o'clock A. M.) [2200—2112]

Thursday, May 9th, 1912.

(An adjournment was taken until 2 P. M., at the request of Mr. Frank.)

AFTERNOON SESSION.

[Testimony of G. W. Dickie, for Libelant (in Rebuttal).]

G. W. DICKIE, called for the libelant in rebuttal, sworn.

Mr. FRANK.—Q. Just give us your name, Mr. Dickie. A. George W. Dickie.

Q. You are a brother of James Dickie, the naval architect? A. Yes, sir.

Q. What is your business, Mr. Dickie?

A. Consulting engineer and naval architect.

Q. Can you give us a short résumé of your training and experience in that business?

A. Yes. I have been in that business all my life, since I left school. First under my own father in Scotland, and for 42 years in San Francisco.

Q. In what capacities have you served in those years?

A. The first 13 years of that time was spent in the capacity of engineer to the Risdon Iron Works, and in 1883 I joined the Union Iron Works Company, then formed.

Q. How long did you remain with them?

A. And continued as manager of the Union Iron Works Company until March of 1905.

Q. In what capacity at the Union Iron Works?

A. As manager of the works during the whole of that time.

(Testimony of G. W. Dickie.)

Q. Are you an active member of any learned societies connected with that work?

A. Yes. I am a member of Council of the American Society of Naval Architects and Marine Engineers, and an ex-member of Council of the American Society of Mechanical Engineers; a member of the Technical Society of the Pacific [2201—2113] Coast, late President of that Society. That covers the principal societies.

Q. In the course of your experience, Mr. Dickie, I presume you have had experience with all kinds of work, connected with ships, building, repairing, and anything that comes up in that line.

A. I have had a pretty wide and general experience in ship work of all kinds.

Q. Since 1905 what have you been doing?

A. I have had an office here as a consulting engineer and naval architect. During that time I have superintended the building of two ships, the "President," and the "Governor," for the Pacific Coast Company. I am now superintending the building of a third ship for them, not named, just being commenced now.

Q. I presume you have done other work during that time, general work.

A. Well, not very much; small work, but not very much.

Q. Now, Mr. Dickie, in the case of repair work upon a vessel—I will first ask you generally, what can you say of the value of estimates made on such work?

(Testimony of G. W. Dickie.)

A. The value of estimates on repair work will always depend on the character of the work to be done; whether it consists of a large section of work that would be required to be renewed on a vessel, or whether it consists of a lot of small details that of themselves form a numerous aggregate of small independent pieces of work done, and I should consider that the value of any estimate for such an aggregate of small detached portions of work would be very unreliable; whereas a large piece of work that was somewhat homogeneous in character and extended over a considerable portion of a ship and yet continuous would admit of estimating the cost that might be expected to come out reasonably close [2202—2114] to the estimate.

Q. Now, in a case where the repairs consisted of the repairs to an engine, and different items of the engine, and in the crank-shaft, and in the shaft generally, through the alley-way and in the gratings in the engine-room and the floor, also took in repairing a tank-top, repairing the peak tank, and in some instances where, as in the case with the tank-top, after the repair had been completed and tested, further defects were found and had to be repaired, in the case of the engine repaired after the work had been begun, changes were made by omitting part of the specifications, and substituting other work for those specifications—what, if anything, would you say was the value of an estimate made upon such work after the work had been completed by a party going to the ship and inspecting the completed work, where it

(Testimony of G. W. Dickie.)

could be seen, and having described to him the rest of the work that could not be seen.

Mr. McCLANAHAN.—I object to the question on the ground that the hypothesis is not fully or properly stated.

Mr. FRANK.—Q. Go on, Mr. Dickie; answer.

A. I should consider that that question was somewhat difficult to answer, but that kind of work that has been described in this question would in my mind not be a fit subject for estimating on, either before or after the work was done; probably it would be more difficult to make an estimate after the work was done because the condition before the work was undertaken would not then be apparent, and the amount of preparation and the amount of work connected with the dismembering of the parts that had to be renewed would be unknown, and there would be no evidence to show what it consisted of, or what the difficulties were that had to be encountered.
[2203—2115]

Q. What is the chief element of expense in repairs of that sort?

A. The chief element of expense is labor.

Q. Now, what, if anything, can you say regarding the uncertainty of the amount of labor that would go into any piece of repair work?

A. The uncertainties in regard to labor are all of the uncertainties that adhere to human nature. No one can estimate on what a man will do. A man might have an idea of how many hours' time or how many days' time he might think it would require,

(Testimony of G. W. Dickie.)

but he has no data to guide him, and never can have any data in regard to repair work, as to what the man actually will do, or a number of men will actually do, when put to that character of work, and where the work is largely composed of labor, it is not a fit subject for estimating or for contracting or to do it at a certain mark; that is my experience about it.

Q. What, if anything, has been your experience with respect to the variation between careful estimates made by skilled estimators, upon **repair work**, and the actual cost of the work when performed?

A. My experience is that where they come pretty close, that it is more a matter of chance than a matter of estimating, large margins must be allowed in making estimates for repair work in order to be able to cover the vast differences that ultimately appear in the case of doing it. Men vary so much, the conditions vary so much. The opportunities for actual good work are so varied in character and unknown that all estimating of that character of work is to a large extent guesswork, guesswork somewhat guided by general experience, but without absolute data to determine it.

Q. Now, with reference to the amount of variation in such instance, how far have you noticed them out?
[2204—2116]

A. I have known jobs to cost twice what they have been estimated to cost, without any apparent reason why, and I have known jobs to cost less. The uncertainty of estimating is such that no one can really

(Testimony of G. W. Dickie.)

be sure about an estimate for repairs. I think that is the experience of all those who are engaged in the business.

Q. Is there any better facility for arriving at the correct estimate of such work by any examination of the work after it is done than there is by an examination of the vessel previous to the work being done?

A. I should prefer if I were estimating to estimate before the work was undertaken rather than after it had been done; that is, if I wanted to arrive at a correct estimate of the real cost of doing the work.

Q. In other words, the facility is greater for estimating it before the work is done than it is after the work is done?

Mr. McCLANAHAN.—I object to that as not a proper restatement of what the witness has said.

Mr. FRANK.—Well, the witness will correct me if I am wrong.

Mr. McCLANAHAN.—I understand the witness has given his personal preference in the matter.

Mr. FRANK.—Q. What is your judgment derived from your experience as to the relative value of the estimates made at those two different times?

A. My judgment in regard to that is that the time when an estimate can be made is when the work is in the condition that it is in that shows the necessity for the repairs being made; then the whole operation appears to the mind of the estimator, as to what he has to do in order [2205—2117] to accomplish this. After the work is done that does not appear, and that, as a rule, forms a pretty large part of the

(Testimony of G. W. Dickie.)

estimate of what the estimator bases his cost upon. The fact is that estimates are not made after the work is done. There would be no need for making estimates after the work is done, and it is a difficult thing to speak about work after it is done. Estimates are made for the purpose of doing the work, and if estimates are made after the work is done, there is some reason different from the actual fact of doing the work that must be present in order to warrant the making of such an estimate.

Q. Well, do I state your position correctly, then, when I say that the result of what you have said is that the elements necessary to make a correct estimate are not so much present after the work is done as they were before the work was done?

A. Certainly, that is what I desired to convey in the answer that I made.

Q. Is there any rule of conduct by men who are careful of their reputation as estimators with respect to estimating upon repair work?

Mr. McCLANAHAN.—I object to that as not rebuttal, immaterial and unintelligible.

Mr. FRANK.—Have you got any more objections. Get them all in. The witness is going to answer.

Mr. McCLANAHAN.—What is the use of putting that in the record? We have the record filled with superfluous things here that have no connection with it. A great many times you have inserted those remarks that are absolutely unnecessary; somebody has got to pay for them, and I am doing the same thing now for the purpose of trying to warn you in

(Testimony of G. W. Dickie.)

the future, as I have done so many times in the past.
[2206—2118]

Mr. FRANK.—Well, I have listened to your lecture over and over again, Mr. McClanahan, in which you have attempted to put the blame of the largeness of the record upon me, which properly belongs to you, and I suppose I have the pleasure of listening to it again. Just read the question to the witness, so that he will know what part of this controversy he is interested in.

(Last question repeated by the Reporter.)

A. Most estimators that I know about and perhaps I am speaking more about myself, are careful to have a very close detail of whatever estimate they undertake. The careful estimator divides his work up into as many parts as possible, making them as small as possible, so that where he has to guess from experience, his errors will balance each other as much as possible by their being divided into a great many items. I know of no other rule in regard to estimating.

Q. You have misunderstood my question, Mr. Dickie. I have not asked you regarding the rule of estimating, but a rule of conduct with respect to undertaking estimates on repair work or not?

A. Well, I would not like to answer that question in that way because what may be a rule of conduct for one would not be a rule of conduct perhaps for another. Some men would undertake an estimate that another would hesitate to undertake. Fools rush in where angels fear to tread.

(Testimony of G. W. Dickie.)

Q. Fools rush in where angels fear to tread, and angels fear to tread in estimates on repair work. Is that what we are to understand?

A. No. That might be inferred, but it refers to all estimators, and it refers to repair work particularly, because repair work is not as a rule estimating but to a large extent a guess. [2207—2119]

Cross-examination.

Mr. McCLANAHAN.—Q. Mr. Dickie you appreciate, do you not, that estimating is done by the shops on repair work, competitive estimating?

A. Yes. I think, though that the shops would prefer not to do it if they could get out of it.

Q. But the owner prefers to know what he has got to pay does he not?

A. Yes; that is natural for the owner to expect to know what he is going to pay.

Q. And where repair works are wanted by an owner of any considerable extent, it is the custom, is it not to ask for bids from the various shops?

A. Well, it might be said to be the custom, but it is not the universal practice.

Q. And the shops do not hesitate to bid, do they, on repair work when they are requested to?

A. Oh, I think not.

Q. You have spoken of a great variation in the matter of estimates. Is that correct? A. Yes.

Q. On the same work? A. Yes.

Q. That is, one estimate will be at variance with another. You said that it sometimes reached the extent of 100 per cent difference. Is that correct?

(Testimony of G. W. Dickie.)

Mr. FRANK.—He has not spoken of estimates—the variation between particular cases and the cost—

The WITNESS.—And the actual cost of the work being done.

Mr. McCLANAHAN.—Q. Then am I wrong in saying there is no great variation in estimates?

A. There is a great variation in estimates.

Q. But you would not put that at double, would you?

A. Well, there was one here the other day where the lowest estimate was \$67,000, and the highest estimate was \$121,000. You see that is pretty near double.

Q. Well, that was something remarkable, was it not, something [2208—2120] unusual?

A. No, I think not.

Q. That occurs very often, does it, that difference?

A. It occurs frequently; there are a great many reasons for it besides estimating.

Q. Well, what would be those reasons, Mr. Dickie, or some of them?

A. Well, if a concern is asked to bid on work and they have other work to do there, they are very apt to bid high, are not particularly anxious to get it; another concern may have nothing to do and will bid below what they know to be the actual cost in order to keep the men at work. There are a great many factors that enter into estimating.

Q. One shop might bid knowing that it would not get the work?

A. Yes, and another bid knowing that he would

(Testimony of G. W. Dickie.)

lose by doing it.

Q. Now, I show you, Mr. Dickie, an exhibit in this case, called Respondent Christy "C," and ask you if you will examine that specification and state whether or not that is a fit subject for an intelligent bid—whether that work enumerated there is a fit subject for an intelligent bid.

A. I should consider a large portion of that is not proper to bid on.

Q. Not proper to bid on?

A. Not proper to estimate on.

Q. What is the portion that you refer to?

A. Well, in a great many instances the work has to be done as directed, and in others it has to be done satisfactorily without any particular statement as to what has to be done.

Q. Those are the particulars, are they?

A. Well, the language all through this specification is indefinite as to the amount of work that has to be done. Simply glancing at it, I should think that it would be a job that one would hesitate to estimate on. [2209—2121]

Q. Suppose those—

A. (Contg.) The only thing that I note here that is really a fixed thing is light and water to be furnished free—that is not a fit subject to estimate on.

Q. What would you have to say if in the particulars you have suggested there the work was pointed out or described that was uncertain?

A. Well, that, of course, would make a difference, if the work was pointed out and described. Of

(Testimony of G. W. Dickie.)

course, no one can say anything about that at all, because it would depend upon the description and how the pointing out was done.

Q. Suppose we should take some of the responsible shops of this city and ask them for bids on that specification how wide in your judgment would be the variation in the bids?

A. Oh, I don't know. I would not like to hazard an opinion about that. Sometimes the closest bids are on the most uncertain work.

Q. Sometimes the closest bids are on the most uncertain work? A. Yes.

Q. Why is that?

A. Now, it isn't easy to tell why in a great many things, but my experience runs that way.

Q. You are not prepared to state, then, how great a variation might reasonably be expected from responsible shops bidding on that work?

A. No, I think there would be quite a variation.

Q. What is the "quite" in your mind? What do you mean?

A. Well, I have not anything definite in my mind about that, but it would be a remarkable thing to me if the bids were very close.

Q. Well, would 10 per cent be very close?

A. Yes, 10 per cent is close, on that kind of work, very close. [2210—2122]

Q. Very close? A. Yes.

Q. I show you two exhibits in this case, Respondent Matson's 5, Respondent Christy 5, and Respondent Matson 7, and ask you if you consider that

(Testimony of G. W. Dickie.)

those bids are very close on that work.

Mr. FRANK.—That is, when you use the word “close,” Mr. McClanahan, do you mean the bids are close in corresponding with each other, or close for the value?

Mr. McCLANAHAN.—We are speaking of values entirely.

Mr. FRANK.—You mean the wording of the bid?

Mr. McCLANAHAN.—I mean the amount of the bid being close. My question is directed to the price for which the work is to be done.

Mr. FRANK.—Then I object to that, because the bids speak for themselves.

Mr. McCLANAHAN.—I am asking for his opinion as to whether they are close or not.

Mr. FRANK.—You can form the same opinion as he can.

Mr. McCLANAHAN.—He is an expert.

A. I think they are quite close.

Q. Now, I will ask you to examine, Mr. Dickie, Gardner's Exhibit No. 1—by the way, you know Mr. Gardner, do you not?

A. I know Mr. Gardner, yes.

Q. Gardner's Exhibit No. 1, which is the same as Christy Exhibit “C,” that you have looked over. In other words the specifications are all there, but there are notations under some of those specifications showing changed work. I will ask you if that would be a difficult specification to bid on as changed?

Mr. FRANK.—I object to that on the ground that the question does not contain the element that shows

(Testimony of G. W. Dickie.)

when or how the [2211—2123] changes were made, whether during the progress of the work, or before the work was begun.

A. I do not think that those notations should make any difference as to the ability to estimate on such work. I would not like to estimate on that at all, on either of them.

Mr. McCLANAHAN.—Q. In this particular case, Mr. Dickie, the evidence is that Mr. Gardner, of whom you know and Mr. Heynemann whom I suppose you know also— A. Yes.

Q. (Contg.) —went to this ship after the work had been done and had the work pointed out to them as far as it was possible to see it all over the ship by another engineer who was present when the work was being done. To these men explanations were made by this engineer, who was the assistant engineer of the ship, and he collaborated with them during their examinations which examinations were made on as many as six or eight different occasions, and extended over a period of seven or eight hours on each occasion, all three of the engineers being together at the time, the work being explained by the assistant engineer who saw the work done, and sketches being made either at the time or immediately after on the different items of the work by these engineers assisted by the assistant engineer of the ship. After these examinations these two engineers, Mr. Gardner and Mr. Heynemann, would retire to the office of one of them and there they would go over the particular work that they had been examin-

(Testimony of G. W. Dickie.)

ing each making his independent and separate figures and reaching his independent and separate conclusion, and then revealing their separate conclusions to each other, and discussing the discrepancies, if any, existed, and then coming to a compromise conclusion on the matter. As I have said, these examinations extended for seven or eight hours [2212—2124] a day for six or eight days, an examination being made even of the ship after she was out of the water in the dock. I will ask you if under those circumstances it is still your opinion that that estimate arrived at by those two engineers under those circumstances would be less accurate than would be your estimate or that of any other competent engineer bidding on the work before it was done?

A. Yes. I think it would be so. I most certainly would not have adopted that method of trying to correct a dispute of this character. It seems to me that these engineers should have also consulted with the people that did the work and gone carefully over their time and material and checked up any errors, if they found them, which would appear to me to be the reasonable way to check up work after it is done.

Q. Let me add further to my former hypothetical question that in arriving at estimates these gentlemen took the prices charged by the works for the material in each case, took the prices charged by the works for the labor in each case. Would that make any difference?

A. Well, the charge for the labor—I presume that the most of this is labor—the charge for the labor

(Testimony of G. W. Dickie.)

would be the matter of the amount of labor and not the wages, not the rate, but the actual amount of labor, would be the method that there could be any dispute about—

Q. (Intg.) Well, you would not say—

A. (Intg.) Of course, I know nothing about this.

Q. You would not want to say, Mr. Dickie, that your estimate or the estimate of yourself and another competent engineer agreeing as to the amount of labor that would be reasonably necessary to do a piece of work would be less accurate as a [2213—2125] measure of value for that work than the actual amount of labor expended by the shop on the work? You understand my question?

A. Yes, I understand it. The actual amount that is expended by the shop would be the actual cost, would it not?

Q. It would not be the measure of the value of the work, would it?

A. Estimates and values are two different things. The value of the work and what it costs is sometimes very widely apart.

Q. That is my point exactly. When you estimate on the value of a piece of work you give your best judgment of what is reasonably to be expected that work would cost under normal conditions?

A. Yes. And illustrative of that, I often ask men to give me an estimate of the amount of time that they would actually take to do certain work, and they invariably estimate far less time than it actually took, because they all thought they could do it

(Testimony of G. W. Dickie.)

quicker than they actually did it.

Q. But I say when you have estimated on the reasonable time that it would take a piece of work to be done there is a variation in your judgment that is very large often times between that estimate and the actual time was put on the work itself?

A. Yes, but the actual time that was put on the work itself, unless it was contracted for to be done for a much less amount of time would be the measure of its cost so far as the bill for it is concerned. That is my opinion.

Q. That would be the measure of its cost, but would it be the measure of its value?

Mr. FRANK.—That is for the Court to determine, whether it is the measure. [2214—2126]

Mr. McCLANAHAN.—Q. You see the distinction do you?

A. I can see the distinction, but I would not care to enter into that distinction at all.

Q. You appreciate, Mr. Dickie, that a shop might put on a piece of work a man who was deficient as a mechanic? A. Yes.

Q. And it might take him three days to do that work when you know that if an efficient man had been put on there he could do it in one?

A. Yes, that is a very old question and has been discussed many a time. But the party who has to pay the bill as a rule has to pay for the deficiency of the men that do the work. If it is done by the day's work the measure is the number of days and not the result that the days have produced.

(Testimony of G. W. Dickie.)

Q. So your idea—

A. (Contg.) And so long as work is measured by time instead of by the actual thing itself, there will be those difficulties.

Q. Your idea is, then, that the owner of the ship, irrespective of the efficiency of the workmen, would have to pay the bill?

A. Well, that would be my opinion, and I think it is the opinion of all those that have bills to be paid.

Q. It is not the opinion of the Matson Navigation Company in this case?

A. Well, that may be so; that is all right.

Q. We take another view of the matter.

A. They are very good people, I am sure.

Q. I believe I am correct in saying that your testimony is to the effect that repair work is not a fit subject for contract, for a fixed sum?

A. That is my opinion. That is qualified to a certain extent that repair work, where it is an extensive repair or a renewal may be a fit subject for contract, but the jobbing repair work, I do not think is a fit subject for contract. [2215—2127]

Redirect Examination.

Mr. FRANK.—Q. That is, it is not a fit subject for contract because—

Mr. McCLANAHAN.—(Intg.) Can't you let the witness testify?

Mr. FRANK.—Yes, I can.

Mr. McCLANAHAN.—Ask him why it is not. I do not think it is fair to do that.

Mr. FRANK.—Very well, I will change it.

(Testimony of G. W. Dickie.)

Q. Why is repair work of the sort you have mentioned not a fit subject for contract?

Mr. McCLANAHAN.—I object to that question on the ground that it has already been answered in the direct examination of the witness and it is not proper rebuttal.

Mr. FRANK.—Q. Go on, Mr. Dickie.

A. Well, my opinion is that it is not a fit subject for contract because of the difficulty of arriving at the actual cost of doing the work.

Mr. McCLANAHAN.—It has already been answered.

Mr. FRANK.—I know, but I want to get it in connection with his answer.

Q. You were asked as to the difference between the value of work as performed and the cost of performing it. Now, what is the basis of the value of the work as performed, Mr. Dickie?

Mr. McCLANAHAN.—I object to that as calling for a conclusion of law from the consulting engineer.

Mr. FRANK.—I do not know. He has testified on that subject, he can explain what he means by it.

A. Do you want an answer? [2216—2128]

Q. Yes.

A. The basis of value of work of all kinds is just what it will bring in the market. That is the basis of value of all work. When you come to deal with repair work, the value of it should be what it costs.

Q. In other words, there is no market for the arti-

(Testimony of G. W. Dickie.)

cle "repair"? A. There is no market.

Q. So the only means of determining that value is what it costs to do it, is that it? A. Yes.

Q. And when you made that distinction, then, you were speaking of a new article—for instance, a new engine. Is that the idea?

A. I was thinking of things that are produced by labor to be sold; things that are repaired and changed, etc., everyone knows that it is usually considered a good place for men to rest when you get on them; the whole of these difficulties arise out of confusion between time and money.

Q. You were asked respecting a bid to be given upon a piece of work shown in Gardner's Exhibit 1, wherein changes are indicated in the specification. Now, I will ask you to state whether or not it would make a great difference in estimating upon that work if the changes indicated were made after the work was begun and in the course of its progress.

A. You mean, Mr. Frank, that is to make a change after the work had progressed so far?

Q. Yes.

Mr. McCLANAHAN.—I object to that question on the ground that there is no evidence to support it as a hypothetical question.

A. If I had to do such a thing I should be inclined to figure out first what money had been spent on the original specification of that particular part of the work and then I would estimate [2217—2129] from the point that the work was at the total cost of

(Testimony of G. W. Dickie.)

completing it with the change and the difference would be what would have to be charged for the change.

Mr. FRANK.—Q. Wouldn't you also take into account the loss of time in making the change?

A. Well, the time would be all in on it.

Q. After that?

A. The time would be on it at the time, at the point you began.

Q. Could you make an estimate of that sort without an actual knowledge of the conditions existing at the time the changes were made?

A. Well, anyone can make an estimate. Estimates are easily made. You can make an estimate at any time and on any thing.

Q. I mean an estimate that should be of any value.

A. Well, the only value, and I would just like to state this distinctly, the only means of arriving at an estimate that would be of value is to have the actual cost. You cannot do anything with that kind of work otherwise.

Recross-examination.

Mr. McCLANAHAN.—Q. In other words, Mr. Dickie, if the shop renders a repair bill for repair work on ships, the owner has to pay the bill in your judgment irrespective of whether it is a right bill or a wrong bill, an excessive charge or not—there is no recourse in your judgment?

A. The words "excessive charge" is capable of a great many interpretations. If a bill was presented where there was 20 hours' charge and 10 hours' work

(Testimony of G. W. Dickie.)

done, then that would be a bill to be rejected; but if there was 20 hours' work done and there was only 10 hours' value of work done for it, then 20 should be paid for. [2218—2130]

Q. How is the man who has to determine that question, the ship owner, to tell whether there has been an excess of work charged?

Mr. FRANK.—I object to that.

A. He usually has someone that is looking after the work.

Mr. McCLANAHAN.—Q. He usually has someone that is looking after the work? A. I think so.

Q. If he has not, he has no alternative but to pay the bill?

A. If he has not, he has great confidence in the party that is doing the work.

Q. He has no recourse?

A. My experience is that where they have had no one watching, the bills have been much easier paid, settled, than when they have.

Q. Now, Mr. Dickie, let me ask you another question on this question of cost and value. I understand you to say that there is a difference between the value of repair work and the value of new work, in that you can estimate more closely as to the latter than the former. Am I correct?

A. Not quite. I did not state it in that way. I stated in new work you could test your price by the market, by the cost in the general market of similar work, you could test your cost.

Q. You could test your cost?

(Testimony of G. W. Dickie.)

A. But when you come to repair work, you have nothing to go on excepting the amount of labor and material that has been expended in the doing of it.

Q. We will take the building of a new engine: Do you mean to say that you could test the value of that engine by the value of similar engines built by other shops after its completion? [2219—2131]

A. Yes.

Q. Now, if one shop has built one of these engines that can be so tested, and has employed in the building of that engine men who have been tired from working long hours on other jobs, or that may have been poor workmen and inefficient workmen, then there would be a difference, would there not, in the cost to the shop, than if they had employed efficient men?

A. That would be the question for the shop, not for anybody else.

Q. But there would be a difference, would there not?

A. Then the shop is in the same condition as the ship owner in the case that you have stated; the shop has to pay the bill.

Q. And that same hypothesis would apply to repair work, would it not?

A. If repair work was done by contract, it applies to it, but if done by day's work, it has to be paid for. That is my opinion.

Mr. McCLANAHAN.—That is all.

Mr. FRANK.—That is all. [2220—2132]

[**Testimony of Tom Wells Ransom, for Libelant (in Rebuttal).**]

TOM WELLS RANSOM, called for the libelant in rebuttal, sworn.

Mr. FRANK.—Q. Mr. Ransom, just state what your business is. A. I am a mechanical engineer.

Q. Just give us in a general way, a résumé of your experience in that line.

A. I was educated at the University of California, the College of Mechanics, graduated in 1891.

Q. Go on.

A. I then went to the Union Iron Works, where I worked for about a year, after which I went to the Pelton Water Wheel Company; worked there about a year as draughtsman, then to the Risdon Iron and Locomotive Works; after that to the Fulton Engineering and Shipbuilding Works, where I worked until about 1899; the latter part of that time I acted as head draughtsman of the Fulton Iron Works; then I was chief engineer in the Abner Doble Company for about a year. I then went into business for myself as a consulting engineer and have continued in that ever since.

Q. In your experience as an engineer, Mr. Ransom, have you had any experience with estimating upon repair work on ships? A. Yes, sir.

Q. What, if anything, have you to say with respect to the value of an estimate made upon repair work upon a ship which estimate is made after the work is completed, by going down on the ship and looking at the completed work so far as the same could be seen

(Testimony of Tom Wells Ransom.)

and where it could not be seen having it explained to him by some other person, and for the purpose of this question only we will assume that this other person was acquainted with the work that was being done?
[2221—2133]

Mr. McCLANAHAN.—Just before answering that I would like to ask the witness some questions on his qualification.

Q. You say you have had experience in repair work, Mr. Ransom? A. Yes, sir.

Q. What does that consist of?

A. In superintending the repairs and alterations on ships. I acted for some two years as engineer for the North Pacific Coast Railway, attended to all their repairs on their ships and attended to the repairs on the California Northwestern Company's boat. I have fitted ships to burn fuel oil in conjunction with Mr. Hopps, who was my partner at the time, the "Arrabs." I spent about \$250,000 on fitting out some German ships to carry horses and doing considerable alteration work on that.

Q. Is that the extent of your repair experience?

A. Yes, sir; on ships.

Q. On ships? A. Yes, sir.

Q. What do you mean by attending to repair work?

A. Where it was necessary for work to be done, I would go over the boat and see what was necessary to be done and make recommendations to the owners of approximate estimate of the cost of the work, discuss what was best to be done, and then would be authorized to enter in a contract with the shops

Testimony of Tom Wells Ransom.)

selected for that work, to prosecute the repairs and see that the repairs were made in the manner in which they were contracted for.

Q. For whom have you made estimates for repair work on ships?

A. J. B. Stetson, Mr. Foster of the California Northwestern Railway, W. R. Grace & Company, alteration to their steamers, [2222—2134] Atchison, Topeka & Santa Fe Railway Company. I don't think of any others just now.

Q. What estimates did you make for Stetson? I mean, on what ships?

A. "Sausalito" and "Tamalpais"—

Q. What was the nature of that work?

A. —and "San Rafael." Upon the "Tamalpais" was overhauling the engines and raising the wheel of the boat and repairing the hull where the sponsons had torn loose from the brackets. The "Sausalito" was the fitting of a new crank-shaft, removing the old crank-shaft, and fitting a new shaft, building up a new wheel. The "San Rafael" was fitting new boilers. That was all I did for Mr. Stetson.

Q. For Foster, what did you do?

A. For Foster, I put in new boilers in the steamer "Donahue," and took out the crank-shaft of the "Tamalpais" and fitted a new one in.

Q. I am not speaking, Mr. Ransom, what you did by way of repairs.

A. I am only speaking of what I made estimates on.

Q. Anything else for Foster?

(Testimony of Tom Wells Ransom.)

A. No, sir; that is all.

Q. What about Grace & Company?

A. Grace & Company, there were four or five steamers that were fitted out to carry horses to China, and there were a number of minor alterations in the steamer and considerable woodwork to be done.

Q. Nothing in regard to the machinery in the engine-room?

A. Not a great deal. There was some—putting in engines in [2223—2135] the engine-room.

Q. What kind of engines? A. Steam engines.

Q. Putting in new engines in the engine-room?

A. Not propelling engines; simply machinery to drive fans and electric generators.

Q. Engines that you would buy outside and install?

A. And install; yes.

Q. That is all you did for Grace? A. Yes, sir.

Q. What did you do for the Atchison, Topeka & Santa Fe Railway Company in the way of estimating on marine work?

A. I built two towboats for them, and estimated on them. That was not repair work, you understand—and fitted bulkhead in the “San Pablo.”

Q. You do not do any engine-room work for them by way of repair work?

A. Not in the way of repair work.

Q. When you say you estimated for these gentlemen, do you mean to say that you gave them a figure on the work? A. An approximate figure.

Q. But a figure that they acted on? A. Yes, sir.

Q. Were those estimates contracted on afterward?

(Testimony of Tom Wells Ransom.)

A. Yes, sir.

Mr. McCLANAHAN.—Will you read the question, Mr. Reporter? (The Reporter reads the question.) I object to the question on the ground that the witness has not qualified as an expert to testify in this case with respect to this repair work.

Mr. FRANK.—Q. Go on, and answer the question, Mr. Ransom. We will further qualify you afterwards, if necessary.

A. The value of an estimate depends entirely upon the amount of information which one is able to get concerning the work to [2224—2136] be done or done, and the question is rather general. An estimate might be pretty accurate, or it might be totally inaccurate and valueless.

Q. I think you have not comprehended the elements in the question that bear upon the value of the estimate. In the first place, it is repair work, and in the second place, it is already completed, and in the third place the party making the estimate cannot see even the entire work that is completed. Now, would that make any difference in the value of an estimate over an estimate made before the work has been begun where all the work can be examined?

Mr. McCLANAHAN.—I object to that question on the ground that the hypothesis is not properly stated as applicable to this case.

Mr. FRANK.—Go on, Mr. Ransom.

A. In order to make an estimate it is necessary to be fully conversant with the work to be done or the work which has been done. In making an estimate

(Testimony of Tom Wells Ransom.)

before work is done an engineer has before him the condition of the work, and if he is familiar with his business can easily imagine the condition of the work which the work will be in after it is completed. In making an estimate after the work is finished he has before him only the condition of the work after it is completed, and there are so many different conditions in which the work might be done before the repairs were undertaken that an estimate of the cost of doing that work would have very little, if any, value.

Q. Now, have you had experience with estimates made upon repair work other than those made by yourself? A. Yes, sir. [2225—2137]

Q. What is the chief element of cost in repair work?

Mr. McCLANAHAN.—I object to the question on the ground that the witness is not qualified to answer it, with respect to repair work performed in this case.

Mr. FRANK.—Go on.

A. I wish you would repeat the question. (The last question repeated by the Reporter.) Labor.

Q. State whether or not there is great or little variation in the results of labor applied to repair work.

Mr. McCLANAHAN.—I will admit that there is.

A. There is an enormous difference.

Mr. FRANK.—I do not need your admission.

Q. The conditions under which those variations will occur, can they be anticipated by an estimator in a question of repairs?

A. The cost of doing work depends very largely

(Testimony of Tom Wells Ransom.)

upon the contractor's control of the conditions. In new work he can control the conditions to a very large extent. On old work, repair work, it is impossible to control conditions, because the work, as it is opened up, very frequently conditions are found to be very much different from what they are expected to be, and the cost of the work is largely increased. Again, it may be found that the conditions are not so bad as expected, and then the work is considerably decreased.

Q. What is the effect upon the cost of labor, or a particular piece of work, where, after the work is begun, changes are made in the proposed work, certain parts that were intended to be done, being omitted, and new and different work being substituted for it as the work progresses?

Mr. McCLANAHAN.—I make my same objection as to the lack [2226—2138] of qualification.

A. The cost of work may vary considerably from the original expectation.

Mr. FRANK.—Q. Have you found in your experience a great degree or otherwise of variation between the estimate made on repair work and the actual cost of the same work as performed?

A. As a general rule, it is very unsatisfactory; the estimates are almost invariably low.

Q. How large a degree of variation have you found?

A. Well, in making estimates myself I have stopped endeavoring to give a fixed value, and usually for making an estimate I give my client an estimate

(Testimony of Tom Wells Ransom.)

between limits; for instance, that a job would not cost less than \$20,000, nor more than \$40,000. It is impossible to estimate such work accurately.

Q. Then you have found as great a variation in that, in estimates, generally, that you have had to do that? A. Yes.

Cross-examination.

Mr. McCLANAHAN.—Q. Mr. Ransom, what estimates did you refer to as those that are invariably low—those that you have made?

A. Estimates made by myself and estimates made by engineers; estimates that I have got from machine-shops such as the Union Iron Works Company, and the Fulton Iron Works and the Risdon Iron Works.

Q. Low as compared to what?

A. To the actual cost.

Q. How do you know that?

A. Why, I have taken—for instance the “Tamalpais,” which we did about \$45,000 worth of work on at one time, the Union Iron Works Company gave us an estimate as to about what they thought the work would cost, but stated that they would not enter into any contract for it, on account of the uncertainty as to the actual cost of the work, [2227—2139] and we kept track of the work by having timekeepers who took the time of each man each day; that was all recorded, and we paid at the shop rates plus 10 per cent profit, and the final price was very much higher than we had anticipated. A good deal of work came up which had not been foreseen at the time that we undertook this work, and increased the price very

(Testimony of Tom Wells Ransom.)

largely. I fortunately told my clients that I thought the work would exceed the estimate and it did.

Q. Is that the only estimate that you have in mind that has been exceeded by the actual cost?

A. No, I speak of that as one in which we could keep the cost very accurately.

Q. You know, Mr. Ransom, that estimates are made, and that contracts have been based on those estimates, do you not? A. Yes.

Q. Has that ever been the case in your experience personally?

A. Why, I am at the present time making estimates for all kinds of work, and contracts are based on them, and I find even new work that estimates will very frequently vary 50 per cent. An estimate cannot under any condition be more than an intelligent guess.

Q. I am speaking now, Mr. Ransom, of your experience in estimating ship repair work. Have you ever made an estimate on which there has been a subsequent contract made for the work?

A. Yes, subsequent contracts are made. I would make a preliminary estimate as to how much the work should cost—

Q. That is not my point. I want to know whether your estimate has ever been taken as the basis of a contract.

A. Certainly it is taken as the basis of a contract. If you will let me answer your question, then if you want to object to it you can [2228—2140] do so. I would make a preliminary estimate

(Testimony of Tom Wells Ransom.)

and state to the owner how much the contracts would cost, and when he opened the bids on the thing, why, if the bids were largely in excess of my estimate, sometimes we would reject the bids and do it on cost and 10 per cent; if about the estimate, the work would be done.

Q. That is not an answer to my question, Mr. Ransom. I want to know whether a contract has ever been made on the actual figure estimated by you?

A. No.

Mr. McCLANAHAN.—That is all.

Mr. FRANK.—That is all.

Mr. FRANK.—That closes our case.

Mr. McCLANAHAN.—Will you take the stand a moment, Mr. Curtis, before Mr. Frank closes his case? I would like to ask you a question.

**[Testimony of Richard W. Curtis, for Respondent,
(Recalled).]**

RICHARD W. CURTIS, recalled:

Mr. McCLANAHAN.—Q. Mr. Curtis, Mr. E. L. Putzar is in your employ now, is he not? A. Yes.

Cross-examination.

Mr. FRANK.—Q. How long has he been in your employ, Mr. Curtis?

A. About a month and two weeks.

Q. Previous to that time and up to the time of his coming into employ, did you have something to do with him? A. No.

Mr. McCLANAHAN.—That closes our case.

Mr. FRANK.—That closes our case.

Testimony closed. [2229—2141]

[Order Directing Entry of Decree.]

At a stated term of the District Court of the United States of America for the Northern District of California, held at the courtroom thereof, in the City and County of San Francisco, on Thursday, the 21st day of November, in the year of our Lord one thousand nine hundred and twelve. Present: The Honorable JOHN J. DE HAVEN, Judge.

#15,013.

UNITED ENGINEERING WORKS

vs.

MATSON ENGINEERING COMPANY.

This cause having been heretofore submitted to the Court for decision, now after due consideration had, the Court files its written opinion, and by the Court ordered that a decree be entered in favor of libelant and against the defendant, for the sum of \$4,121.80, with interest thereon at the rate of seven per cent per annum, from November 28, 1909; and for the further sum of \$29,740.89, and for costs; the whole amount so found to be due to bear interest at the rate of seven per cent per annum until paid. [2230]

*In the District Court of the United States, in and
for the Northern District of California, First
Division.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corpora-
tion,

Libellant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Opinion.

Filed Nov. 21st, 1912.

NATHAN H. FRANK and IRVING H.
FRANK, Proctors for Libellant.

McCLANAHAN & DERBY, Proctors for Re-
spondent.

DE HAVEN, District Judge.—This is a libel to recover for materials and labor alleged to have been furnished to respondent in repairing its steamship “Hilonian.”

The libel states two causes of action. In the first the items for materials and labor are particularly set forth in schedules one, two and three attached to the libel; and the reasonable value of such materials and labor is alleged to be \$30,955.85, and after deducting therefrom the sum of \$520.01—with which libellant credits the respondent—the amount claimed in this cause of action is \$30,435.84. In the second cause of action the amount claimed is \$4,301.88, the

particulars of which claim are set forth in schedules attached to the libel, marked four, five, six, seven, eight, nine and ten.

The total amount claimed on account of the matters alleged in both causes of action is \$34,737.72.
[2231]

1. The second cause of action is admitted by the answer with certain minor exceptions, and upon consideration of the evidence, I find that all the allegations of the libel relating to this cause of action are true, with the exception of that relating to the third item of one hundred eighty dollars, described in schedule nine of the libel. I think the work for which this charge is made is covered by the contract to remove the old and install new smokestack on the "Hilonian" for the sum of \$900. There will therefore be deducted from the amount claimed in the second cause of action the sum of \$180.00.

2. The main controversy relates to the first cause of action. The respondent in its answer alleges: That on August 2, 1909, the libellant submitted a bid to perform a part of the work described in schedules one, two, and three, for the sum of \$11,749, and that this bid was accepted by the respondent and a binding contract thus formed; that during the progress of the work covered by said contract certain omissions and changes were mutually agreed on, and materials and labor furnished in addition to what was called for by the contract; that the value of the work and materials omitted from the contract by agreement was \$1,398.25, and that the additional work and materials were of the value of \$8,280.50.

That certain additional work was done in September and October, 1909, of the value of not more than \$937.07, and the total amount due libellant under schedules one, two and three, covering the first cause of action alleged is alleged by respondent to be not more than \$19,568.32.

Upon the issues made by the pleadings a great number of exhibits were introduced in evidence and testimony was taken, covering 2,141 typewritten pages. I have given careful consideration to the voluminous record and have reached the conclusion [2232] that the contention of the respondent that a portion of the work and materials described in schedules one, two and three, was done and furnished at the agreed price of \$11,749.00 is not sustained by the evidence, and I am further of the opinion that with certain exceptions, to be hereinafter stated, the amount claimed by the libellant in the first cause of action is the reasonable value of the labor performed and materials furnished by it in the repair of the respondent's steamship "Hilonian." The contract under which the repairs were made is what is termed a time and material contract, and while the manner of keeping the accounts of the different men engaged in the work, and of the different articles furnished is somewhat complicated, I think that with the exceptions now to be noted, the account as stated in schedules one, two and three of the libel is correct.

I find that the following items should be deducted from the amount claimed in the first cause of action :

1. Labor and materials described on page 2 of schedule three attached to the libel, \$226.35.

2. For what appears to be a duplicate charge for labor under date of September 17th, in Putzer's time-book, \$71.50.

3. At the close of schedule one, attached to the libel, there is a classification of labor sued for in the first cause of action. This classification shows that there is a charge for work of machinists in shop, 3,384 hours at .60 an hour; but, as I understand the testimony of Mr. Curtis, there is an error in the amount thus claimed. In checking the time-cards introduced in evidence, he states that they show the time worked by the machinists to be 2,842½ hours, a difference of 541 hours, amounting to \$324.90. The amount claimed in the libel for machinists' helpers is 1,124 [2233] hours at .40 an hour, amounting to \$449.60. The testimony of Curtis is to the effect that this item should have been 943½ hours, a difference of 180½ hours, amounting to \$72.20. There will therefore be deducted from the amount demanded in the first cause of action the sum of \$694.95.

4. There are numerous other deductions which respondent claims should be made from the schedules attached to the libel; they cannot all be noticed in this memorandum opinion, and only one will be referred to.

One of the items claimed by libellant is for running power-house at night, 480 hours, at \$1.50 per hour; Putzer's time-book shows night work on but 23 days. Upon this point, the proctors for respondent urge: "The day's work was 8½ hours, which would leave 15½ hours as the greatest possible num-

ber of hours the power-house could have been run any one day for night work," and "the time-book shows night work on but 23 days." The answer to this contention is, in my view of the case, found in the testimony of the witness Marcell Ferro, and the time-cards referred to therein.

5. There remains for consideration only the question of interest. Both causes of action are based upon contracts made and to be performed in this State, and that in such a case the law of this State governs in determining the amount of interest, if any, which the libellant is entitled to recover, was, I think, decided by the Circuit Court of Appeals for this circuit, in *Steamship Wellesley Co. vs. C. A. Hooper & Co.*, 185 Fed. 733, and was likewise so held by the Circuit Court of Appeals for the Second Circuit in the case of *Mary N. Bourke*, 145 Fed. 909. In this last case the Court said: "It is undisputed that this action is brought upon contracts made in Michigan by citizens of that State and that the contracts [2234] were to be performed there. In *this* circumstances we think the interest should have been allowed at the Michigan rate which was five per centum per annum."

Now, in this case the first cause of action is upon *quantum meruit*, and as to that the "general rule in this State is undoubtedly that, in an action of *quantum meruit*, interest is not allowed until judgment is rendered." *American-Hawaiian etc. Co. vs. Butler*, 17 Cal. App. 768; *Cox vs. McLaughlin*, 76 Cal. 60; *Macomber vs. Biglow*, 123 Cal. 532; *Stimson vs. Dunham*, 146 Cal. 281. In *Cox vs. McLaughlin*, just

cited, the Court said: "It may be stated as a general principle, that interest is not allowed on unliquidated damages or demands. This term 'unliquidated' applies equally to cases of tort, as slander, assault and battery, etc., and to cases upon a *quantum meruit*, for goods sold and delivered or services rendered. The reason of such denial of interest is said to be that the person liable does not know what sum he owes, and therefore can be in no default for not paying. The damages in such cases are an uncertain quantity, depending upon no fixed standard, are referred to the wise discretion of a jury, and can never be made certain except by accord or verdict."

Following the rule declared in the above cases, it is my conclusion that the libellant is not entitled to recover interest upon the amount found due under the first cause of action.

The second cause of action is based upon express contracts to do the work and furnish the materials therein specified, at agreed prices. Money due under such contracts draws interest from the day it becomes due, and libellant is entitled to recover interest at the rate of seven per cent per annum, from November 28, 1909, upon the amount found due him upon the second cause of action. [2235]

Let a decree be entered in accordance with this opinion in favor of the libellant for the sum of \$4,121.88, with interest thereon at the rate of seven per cent per annum, from November 28, 1909, and for the further sum of \$29,740.89, and for costs.

The whole amount found due by the decree to bear

interest at the rate of seven per cent per annum, from date until paid.

[Endorsed]: Filed Nov. 21, 1912. W. B. Maling, Clerk. By Francis Krull, Deputy Clerk. [2236]

At a stated term of the District Court of the United States of America, for the Northern District of California, held at the courtroom thereof in the United States Postoffice Building in the City and County of San Francisco, State of California, on the 25th day of November, one thousand nine hundred and twelve. Present: Hon. JOHN J. DE HAVEN, District Judge.

No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Final Decree.

This cause having been heard on the pleadings and proofs, and having been argued and submitted by the proctors for the respective parties, and due deliberation having been had,—

IT IS NOW ORDERED, ADJUDGED AND DECREED by the Court that the libelant do have and recover of the respondent, Matson Navigation Co., a corporation, the sum of Four Thousand Nine Hundred and Eighty-five and 10/100 (4,985.10) Dol-

lars, together with the further sum of Twenty-nine Thousand Seven Hundred and Forty and 89/100 (29,740.89) Dollars, and costs to be taxed, with interest at the rate of seven per cent per annum on the total amount of said sums from the date of this decree.

Dated November 26th, 1912.

JOHN J. DE HAVEN,

Judge.

[Endorsed]: Filed Nov. 26, 1912. W. B. Maling, Clerk. By Francis Krull, Deputy Clerk. [2237]

In the District Court of the United States, in and for the Northern District of California.

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,
tion,

Libellant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Proctor's Bill of Costs—Libellant.

PROCTOR'S BILL OF COSTS.

Proctor's docket fee.....\$20.00

Proctor's docket fee for following depositions
taken on behalf of libellant:

Francis Dolan \$2.50

Robert Adamson 2.50

George Allen 2.50

Edward Corcoran 2.50

Robert H. Nickerson.....	2.50
P. Montgomery	2.50
J. C. Gardener	2.50
S. Hagland	2.50
Fred Boyd	2.50
S. Carter	2.50
Frank Paoli	2.50
Joseph Bush	2.50
Stephen Cronin	2.50
R. H. Roberts	2.50
George La Violette	2.50
Charles A. Wilson.....	2.50
W. B. Thomas	2.50
Rudolf Schafer	2.50
P. Mockel	2.50
John Benson	2.50
Donald Stimmel	2.50
John B. Pennycott	2.50
John Mello	2.50
Fenton K. Young	2.50
John P. Wojdacki	2.50
Alfred Boyer	2.50
William Hay	2.50
H. G. Strowenjans	2.50
S. M. Robertson	2.50
Charles Grotefend	2.50

Carried forward	\$75.00	20.00
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Brought forward	\$75.00	20.00
William McDonald	2.50	
Arthur Robinson	2.50	
William Lentz	2.50	
Henry Mockel	2.50	
Joseph Larralondo	2.50	
David Doig	2.50	
L. Wilhelmson	2.50	
Henry Speed	2.50	
Manuel Mange	2.50	
L. K. Siverson	2.50	
John T. Mitchell	2.50	
William S. Taylor	2.50	
Henry Nelson	2.50	
Robert Campbell	2.50	
James Lewis Chandler	2.50	
James Robert Christy	2.50	
L. W. Musgrave	2.50	
Marcell Ferro	2.50	
John Healy	2.50	
Richard W. Curtis	2.50	
Henry Paul Gray	2.50	
L. Williamson	2.50	
G. W. Dickie.....	2.50	
John Herbert Hopps	2.50	
Tom Wells Ransom	2.50	
Harry V. Gregg	2.50	
A. C. Diericx	2.50	
Edward S. Hough	2.50	
L. C. Bartmess.....	2.50	

Proctor's docket fee for following

depositions taken on behalf of
respondent:

William Matson	2.50
Charles W. Saunders.....	2.50
William H. Stewart.....	2.50
C. C. Kinsman	2.50
Carl E. Klitgaard	2.50
Lionel Heynemann	2.50
E. B. McClanahan	2.50
Fred A. Gardner.....	2.50

~~Paid Clerk U. S. District Court,
Deposit on account of Costs.~~

~~15.00~~

Paid U. S. Commissioner and U.
S. Official Reporter for taking
depositions on behalf of libel-
ant, 4269 folios at 30 cts. per
folio (See voucher annexed).

1280.70

To $3\frac{1}{4}$ per diems for reporting pro-
ceedings in Court, Aug. 21;
Oct. 16; Nov. 7 (See voucher
attached)

7.50

To transcribing 105 folios at 10
cts. per folio (for use of
court) libelant's half share
(See voucher attached).....

10.50

Paid U. S. Marshal for service of
Summons on Matson Naviga-
tion Co.....

2.10

Carried forward,

2
\$1503.30

Brought forward, \$1503.30

Paid witness fees as follows:

FRANCIS DOLAN—2 days' attendance, actually testifying in cause, at \$3.00 per day			6.00	3.00
Mileage—Alameda and return.....			.40	
ROBERT ADAMSON—8 days' attendance, actually testifying in cause.....			24.00	12.00
Mileage—Alameda and return			1.60	
GEORGE ALLEN—3 days' attendance, actually testifying in cause.....			9.00	4.50
Mileage—Alameda and return .....			.60	
EDWARD CORCORAN—2 days' attendance, actually testifying in cause.....			6.00	3.00
Mileage—Alameda and return.....			.40	
ROBERT H. NICKERSON—1 day's attendance, actually testifying in cause, at 3.00 per day.....			3.00	1.50
Mileage—Alameda and return .....			.20	
P. MONTGOMERY—1 day's attendance, actually testifying in cause.....			3.00	1.50

Mileage—Alameda and re-		
and return.....	.20	
J. C. GARDNER—1 day's at-		
tendance, actually testifying		
in cause at 3.00 per day....	3.00	1.50
Mileage—Alameda and re-		
turn .....	.20	
S. HAGLAND—2 days' at-		
tendance, actually testifi-		
ing in cause, at 3.00 per day	6.00	3.00
Mileage—Alameda and re-		
turn .....	.40	
FRED BOYD—2 days' at-		
tendance, actually testifying		
in cause, at 3.00 per day...	6.00	3.00
Mileage—Alameda and re-		
turn.....	.40	
S. CARTER—1 day's attend-		
ance, actually testifying in		
cause, at 3.00 per day.....	3.00	1.50
Mileage—Alameda and re-		
turn	2.20	
FRANK PAOLI—1 day's at-		
tendance, actually testifying		
in cause.....	3.00	1.50
Mileage—Alameda and re-		
turn.....	.20	
JOSEPH BUSH—1 day's at-		
tendance, actually testifying		
in cause.....	3.00	1.50
Mileage—Alameda and re-		
turn.....	.20	

STEPHEN CRONIN—2		
days' attendance, actually		
testifying in cause.....	6.00	3.00
Mileage—Alameda and re-		
turn .....	.40	
R. H. ROBERTS—2 days'		
attendance, actually testify-		
ing in cause.....	6.00	3.00
Mileage—Alameda and re-		
turn .....	.20	
GEORGE La VIOLETTE		
1 day's attendance, actually		
testifying in cause at 3.00		
pr day.....	3.00	1.50
Mileage—Alameda and re-		
turn .....	.20	96.00
Carried forward,		\$1599.30

[2240]

Brought forward,		\$1599.30
CHARLES A. WILSON—1		
day's attendance, actually		
testifying in cause, at 3.00		
per day.....	3.00	1.50
Mileage—Alameda and re-		
turn.....	.20	
JOSEPH LARRALONDO—1		
day's attendance, actually		
testifying in cause, at 3.00		
per day.....	3.00	1.50
Mileage—Alameda and re-		
turn.....	.20	

DAVID DOIG—1 day's attendance, actually testifying in cause at \$3 per day.	3.00	1.50
Mileage—Alameda and return. . . . .	.20	
L. WILHELMSON—2 days' attendance, actually testifying in cause at \$3 per day. .	6.00	3.00
Mileage—Alameda and return. . . . .	.40	
HENRY SPEED—1 day's attendance, actually testifying in cause, at \$3 per day. .	3.00	1.50
Mileage—Alameda and return. . . . .	.20	
MANUEL MANGE—1 day's attendance, actually testifying in cause.	3.00	1.50
Mileage—Alameda and return. . . . .	.20	
L. K. SIVERSON—4 days' attendance, actually testifying in cause, at \$3 per day. .	12.00	6.00
Mileage—Alameda and return. . . . .	.20	
JOHN T. MITCHELL—1 day's attendance, actually testifying in cause, at \$3 per day. .	3.00	1.50
Mileage—Alameda and return. . . . .	.20	
WILLIAM S. TAYLOR—2 days' attendance, actually		

testifying in cause, at \$3 per day.....	6.00	3.00
Mileage—Alameda and return.....	.40	
HENRY NELSON—1 day's attendance, actually testifying in cause, at \$3 per day.	3.00	1.50
Mileage—Alameda and return....	.20	
ROBERT CAMPBELL—1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and return....	.20	
JAMES LEWIS CHANDLER—2 days' attendance, actually testifying in cause, at \$3 per day.....	6.00	3.00
Mileage—Alameda and return....	.40	
L. W. MUSGRAVE—1 day's attendance, actually testifying in cause, at \$3 per day..	3.00	1.50
Mileage—Alameda and return....	.20	
MARCELL FERRO—1 day's attendance, actually testifying in cause, at \$3 per day.	3.00	1.50
Mileage—Alameda and return....	.20	
JOHN HEALY—1 day's at-		

tendance, actually testify- ing in cause, at \$3.00 per day.....	3.00	1.50
Mileage—Alameda and re- turn....	.20	67.20
		<hr/>
Carried forward,		\$1666.50

[2241]

Brought forward,		\$1666.50
W. B. THOMAS—1 day's at- tendance, actually testifying in cause, at \$3 per day....	3.00	1.50
Mileage—Alameda and re- turn....	.20	
RUDOLF SCHAFER — 1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and re- turn....	.20	
P. MOCKEL—1 day's attend- ance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and re- turn....	.20	
JOHN BENSON—1 day's at- tendance, actually testify- ing in cause, at \$3 per day..	3.00	1.50
Mileage—Alameda and re- turn....	.20	
DONALD STIMMEL — 1 day's attendance, actually		

testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and return....	.20	
JOHN B. PENNYCOTT—1 day's attendance, actually		
testifying in cause.....	3.00	1.50
Mileage—Alameda and return....	.20	
JOHN MELLO—1 day's attendance, actually		
testifying in cause.....	3.00	1.50
Mileage—Alameda and return....	.20	
FENTON K. YOUNG—1 day's attendance, actually		
testifying in cause, at \$3 per day....	3.00	1.50
Mileage—Alameda and return....	.20	
JOHN P. WOJDACKI—1 day's attendance, actually		
testifying in cause.....	3.00	1.50
Mileage—Alameda and return....	.20	
ALFRED BOYER—1 day's attendance, actually		
testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and return.....	2.20	
WILLIAM HAY—1 day's		

attendance, actually testify- ing in cause, at \$3 per day..	3.00	1.50
Mileage—Alameda and re- turn.... .	.20	
H. G. STROWENJANS—1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and re- turn.... .	.20	
S. M. ROBERTSON—1 day's attendance, actually testify- ing in cause, at \$3 per day..	3.00	1.50
Mileage—Alameda and re- turn.... .	.20	
CHARLES GROTEFEND—1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and re- turn.... .	.20	
WILLIAM McDONALD —1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50
Mileage—Alameda and re- turn.... .	.20	
ARTHUR ROBINSON — 1 day's attendance, actually testifying in cause, at \$3 per day.....	3.00	1.50

Mileage—Alameda and re-		
turn.....	.20	51.20

Carried forward,		\$1717.70
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[2242]

Brought forward,		\$1717.70
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WILLIAM LENTZ—1 day's		
attendance, actually testify-		
ing in cause, at \$3 per day.	3.00	1.50

Mileage—Alameda and re-		
turn.....	.20	

HENRY MOCKEL—1 day's		
attendance, actually testify-		
ing in cause, \$3 per day....	3.20	1.50

Mileage—Alameda and re-		
turn.....	.20	

G. W. DICKIE—1 day's at-		
tendance, actually testify-		
ing in cause.....	3.00	1.50

JOHN HERBERT HOPPS—		
1 day's attendance, actually		
testifying in cause, at \$3 per		
day.....	3.00	1.50

RICHARD W. CURTIS—5		
days' attendance, actually		
testifying in cause, at \$3 per		
day.....	15.00	7.50

TOM WELLS RANSOM—1		
day's attendance, actually		

testifying in cause, at \$3 per		
day.....	3.00	1.50
Verification of Cost Bill.....	.50	30.90
	<hr/>	<hr/>
		\$1748.60

Taxed at \$1631.60.

W. B. MALING,
Clerk.

By Francis Krull,
Deputy Clerk.

NATHAN H. FRANK,
IRVING H. FRANK,
Proctors for Libelant. [2243]

State of California,
City and County of San Francisco,—ss.

Irving H. Frank, being duly sworn, deposes and says: That he is one of the proctors for the libelant in the above-entitled cause, and as such he is informed relative to the above costs and disbursements; that the items in the above memorandum are correct, and that the said costs and disbursements have been necessarily incurred in said cause.

IRVING H. FRANK.

Subscribed and sworn to before me this 27th day of November, 1912.

[Seal]

HENRY P. TRICOU,
Notary Public in and for the City and County of San Francisco, State of California. [2244]

*District Court of the United States, Northern Dis-
trict of California.*

No.—

JAMES P. BROWN.

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION COMPANY.

UNITED STATES COMMISSIONER'S COSTS.

190. 1912.

Including Reporter's Fees pd. C. Bennett.

May 13.	To taking testimony on behalf of the libelant in above case, 4,269 folios at 30¢.....	1280.70
	To copy of testimony on behalf of libelant and respondent, 6,018 folios at 10¢.....	601.80
		<hr/>
		\$1882.50
	To checks on account.....	1200.00
		<hr/>
		\$ 682.50
		O. K.
		N. H. F.

PLEASE RECEIPT AND RETURN.

Received payment,

JAS. P. BROWN.

L. E.

Ck. 17589. [2245]

District Court of the United States, Northern District of California.

No.—

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION CO.

United States Commissioner's Costs.

190 1911

Including Reporting & Typewriting.

Sep. 21. Received, on account of taking
testimony on behalf of libelant
in above case, Twelve Hun-
dred.....\$1200.00

Rec'd on account \$1200.00.

JAS. P. BROWN,
Comm. [2246]

Telephone Market 301. Notary Public.

CLEMENT BENNETT,
U. S. Official Reporter,
329 New Post Office Building,
San Francisco.

May 13th, 1912.

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION CO.

To Clement Bennett, Dr.

Aug. 21,

Oct. 16,

Nov. 7. To 3¼ per diems for reporting pro-

ceedings in court.....	\$7.50
To transcribing 105 folios at 10¢	
for use of court (half share)...	10.50
To copy for counsel.....	10.50
To copying cards, 200 folios at 20¢.	40.00
	<hr/>
	\$68.50

PLEASE RECEIPT AND RETURN.

Received payment,

CLEMENT BENNETT.

L. E.

O. K. N. H. F.

Ck 17588.

Receipt of a copy of the within Cost Bill is hereby admitted this 27th day of November, 1912.

McCLANAHAN & DERBY,

Proctors for Respondent.

Costs to be taxed Nov. 30th at 10 A. M. McC.
& D. [2247]

Opinion [of Clerk on Taxation of Costs].

#15,013.

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION CO.

In the taxation of proctor's bill for costs herein, the only questions in dispute are:

1. Should a witness attending before a United States Commissioner on a reference to take testimony be allowed a per diem of \$3.00.

2. Should a fee be allowed to a witness for attendance without being under subpoena.

As to the first contention the clerk is of opinion that it cannot be held that a witness so attending has actually attended "at the court," as required to entitle the taxation of a \$3.00 per diem, and these items are therefore taxed at \$1.50 per diem.

Under date of June 18, 1908, this office received a Department Circular signed by the then Attorney-General, directed to Clerks and others, which reads in part as follows:

"The provisions of law in question (referring to the provision in the Sundry Civil Appropriation Act approved May 27th, 1908, affecting this question) refers only to jurors and witnesses in the United States courts in the states and territories specified, and does not affect in any manner the compensation of witnesses before United States Commissioners, who will receive, as heretofore, only \$1.50 for each day actually in attendance, and the usual allowance of five cents for each mile necessarily traveled, whether by stage line, private conveyance or otherwise."

As to the second contention the views expressed by Hawley, Judge, in the case of *Hanchett vs. Humphreys*, 93 Fed. 895, are followed, and taxation is therefore made for witnesses attending voluntarily. [2248]

[Endorsed]: Filed Nov. 30, 1912. W. B. Maling, Clerk. By C. W. Calbreath, Deputy Clerk. [2249]

At a stated term of the District Court of the United States of America for the Northern District of California, held at the Courtroom thereof, in the City and County of San Francisco, on Tuesday, the 3d day of December, in the year of our Lord one thousand nine hundred and twelve. Present: The Honorable JOHN J. DE HAVEN, Judge.

15,013.

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION CO.

Order Affirming Clerk's Taxation of Costs.

Irving Frank, Esqr., proctor for libellant, and S. H. Derby, proctor for respondent, *and* appealed from the taxation of costs made herein by the clerk of this court, and after hearing counsel, said appeal was submitted to the Court for determination, and thereupon, after due consideration had, the Court filed its written memorandum, and by the Court ordered that the said taxation of the clerk be, and the same is hereby, affirmed. [2250]

[Memorandum Opinion of Court on Taxation of Costs.]

In the District Court of the United States, for the Northern District of California, First Division.

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS

vs.

MATSON NAVIGATION CO.

DE HAVEN, District Judge.—In the taxation of libelants' costs herein, the clerk properly ruled that a witness attending before a United States Commissioner, on a reference to take testimony, was only entitled to a per diem of \$1.50 per day, and, secondly, that a witness attending voluntarily at the request of a party, but not under subpoena, was entitled to receive the per diem allowed by law to witnesses.

Taxation of costs affirmed.

[Endorsed]: Filed Dec. 3, 1912. W. B. Maling, Clerk. By Francis Krull, Deputy Clerk. [2251]

*In the District Court of the United States, in and for
the Northern District of California, First Division.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Notice of Appeal.

To Walter B. Maling, Clerk of the Above-entitled Court, United Engineering Works, Libelant Herein, and Messrs. Nathan H. Frank and Irving H. Frank, Proctors for Libelant:

Please take notice that the Matson Navigation Company, respondent herein, hereby appeals to the

United States Circuit Court of Appeals for the Ninth Circuit from the final decree of the District Court of the United States of the Northern District of California, dated, filed and entered in the above-entitled cause on the 26th day of November, 1912, and from the whole of said decree.

Dated: December 4th, 1912.

McCLANAHAN & DERBY,

Proctors for Respondent.

Receipt of a copy of the within Notice of Appeal is hereby admitted this 4th day of December, 1912.

NATHAN H. FRANK,

IRVING H. FRANK,

Proctors for Libelant.

[Endorsed]: Filed Dec. 5, 1912. W. B. Maling, Clerk. By Lyle S. Morris, Deputy Clerk. [2252]

In the District Court of the United States, in and for the Northern District of California, First Division.

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,
Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Bond on Appeal for Costs and Staying Execution.

KNOW ALL MEN BY THESE PRESENTS:
That we, Matson Navigation Company, a corpora-

tion, as principal, and Globe Indemnity Company, a body corporate duly incorporated under the laws of the State of New York, and authorized to act as surety under the Act of Congress approved March 13th, 1894, as amended by the Act of Congress approved March 23d, 1910, whose principal office is located in the City of New York, as surety, are held and firmly bound unto the United Engineering Works, a corporation, libelant in the above-entitled cause, in the sum of Two Hundred and Fifty (250) Dollars, and in the further sum of Forty Thousand (40,000) Dollars, to be paid to the said United Engineering Works, its successors or assigns, [2253] for the payment of which sums, well and truly to be made, we bind ourselves and each of us and our respective successors, heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 6th day of December, 1912.

WHEREAS, the Matson Navigation Company, as respondent herein, has appealed to the United States Circuit Court of Appeals for the Ninth Circuit from a decree of the District Court of the United States for the Northern District of California, bearing date the 26th day of November, 1912, in a suit in which the United States Engineering Works is libelant, and the Matson Navigation Company is respondent, which decree orders the said respondent to pay to said libelant the sum of Thirty-four Thousand Seven Hundred and Twenty-five and 90/100 (34,725.90) Dollars, with interest and costs; and

WHEREAS, the said Matson Navigation Com-

pany desires, during the progress of said appeal, to stay the execution of said decree of said District Court;

NOW, THEREFORE, the condition of this obligation is such that if the above-named appellant, the Matson Navigation Company, shall prosecute said appeal with effect and pay all costs which may be awarded against it as such appellant if the appeal is not sustained, and shall abide by and perform whatever decree may be rendered by the United States Circuit Court of [2254] Appeals for the Ninth Circuit in the said cause or on the mandate of said Circuit Court of Appeals by said court below, then this obligation shall be void; otherwise the same shall be and remain in full force and effect.

MATSON NAVIGATION COMPANY,

By WM. MATSON,

Its President.

By HARRY B. GREGG,

Its Secretary.

GLOBE INDEMNITY COMPANY,

By R. P. FABJ,

Resident Vice-President.

And D. DUNCAN,

Resident Asst. Secretary.

[Seal]

[Seal]

The foregoing cost and supersedeas bond is hereby approved this 6th day of December, 1912.

JOHN J. DE HAVEN,

Judge.

[Endorsed]: Filed Dec. 6, 1912. W. B. Maling, Clerk. By Francis Krull, Deputy Clerk. [2255]

*In the District Court of the United States, in and for
the Northern District of California, First Division.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,
tion,

Libellant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Notice of Filing Bond on Appeal.

To the United Engineering Works, Libellant Herein,
and to Nathan H. Frank, Esq., and Irving H.
Frank, Esq., Its Proctors:

Please take notice that respondent's bond on appeal for costs and staying execution in the sum of Forty Thousand Two Hundred and Fifty (40,250) Dollars was filed in the office of the clerk of the above-named court on the 6th day of December, 1912, with the Matson Navigation Company as principal, and with the Globe Indemnity Company, a corporation, duly organized and existing under the laws of the State of New York and authorized to do business in the State of California, whose residence is in New York, and whose local office is 508 California Street, San Francisco, as surety.

Dated December 6th, 1912.

McCLANAHAN & DERBY,
Proctors for Respondent. [2256]

Receipt of copy of within Notice is hereby admitted this 6th day of December, 1912.

NATHAN H. FRANK,

IRVING H. FRANK,

Proctors for Libelant.

[Endorsed]: Filed December 9, 1912. W. B. Maling, Clerk. [2257]

*In the District Court of the United States, in and for
the Northern District of California, First Division.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corporation,
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

Assignment of Errors.

Now comes the Matson Navigation Company, the respondent and appellant herein, and says that in the record, opinion, decision, decree and proceedings in the above-entitled cause there is manifest and material error, and said appellant now makes, files and presents the following assignment of errors on which it relies, to wit:

1. That the Court erred in awarding to the libelant the sums allowed by the decision and decree herein, to wit, the sum of \$29,740.89, under libelant's first cause of action in its libel contained, and the sum

of \$4,121.88, with interest at 7 per cent from November 28th, 1909, under libelant's second cause of action in its libel contained, in that said awards are not warranted by the evidence herein and were and are excessive and erroneous.

2. That the Court erred in holding and deciding that the sum of \$29,740.89 was the reasonable value of the labor performed and materials furnished by the libelant herein under the first cause of action in its libel contained, in that said amount is excessive, erroneous, not warranted by the evidence herein and far above the reasonable value of said labor and materials as shown by said evidence. [2258]

3. That the Court erred in holding and deciding that a portion of the work and materials described in schedules one, two, and three attached to the libel herein (and covering libelant's said first cause of action) was not done and furnished under a contract and at an agreed price, and in allowing to libelant the value of said work and materials on a *quantum meruit* basis.

4. That the Court erred in not holding and deciding that before the repair work done by libelant on appellant's steamship "Hilonian" was begun a contract had been made between libelant and appellant to perform certain repair work set forth and enumerated in written specifications (covering a portion of the work described in schedules one, two and three attached to said libel as a part of libelant's first cause of action, and certain other repair work on said "Hilonian") for the sum of \$11,749.00.

5. That the court erred in not holding and decid-

ing in regard to libelant's first cause of action that, during the progress of the work covered by the aforesaid contract, certain omissions and changes from the said original specifications were agreed on and certain materials and labor furnished in addition to that called for by said contract and specifications, and in not holding that the value of the work and materials omitted from said contract and specifications by such mutual agreement was the sum of, to wit, \$1,398.25, and that the additional work so mutually agreed on was of the value of the sum of, to wit, \$8,290.50, and also in not holding and deciding that other additional work in the repairing of said "Hilonian" in September and October, 1909, was of a value of not over the sum of, to wit, \$937.37.

6. That the Court erred in not holding and deciding that the total amount due to libelant under its first cause of action was the sum of, to wit, \$19,568.32, or less.

7. That the Court erred in not sustaining appellant's separate defense to libelant's said first cause of action as set up [2259] in appellant's answer herein.

8. That the Court erred in not making each and all of the deductions claimed in appellant's answer to libelant's second cause of action in its libel contained, and in only deducting the sum of \$180.00, from the amount claimed in said second cause of action.

9. That the Court erred in not holding and deciding that the whole sum due and owing to the libelant from the appellant herein under both the first and

second causes of action in the libel contained did not exceed the sum of \$22,922.56 (exclusive of interest and costs), and in awarding to the libelant herein under said first and second causes of action the sum of \$33,862.77 (exclusive of interest and costs).

10. That the Court erred in allowing libelant its costs herein.

11. That the Court erred in allowing libelant as a part of its costs herein the sums paid by it for attendance and mileage of witnesses appearing before the Commissioner appointed to take testimony in the above cause, in that said witnesses did not appear before said commissioner under subpoena or pursuant to law.

In order that the foregoing assignment of errors may be and appear of record, said appellant files and presents the same, and prays that such disposition be made thereof as is in accordance with law and the statutes of the United States in such cases made and provided, and said appellant prays a reversal of the decree herein heretofore made and entered in the above cause and appealed from.

Dated San Francisco, Cal., December 27th, 1912.

McCLANAHAN & DERBY,

Proctors for Matson Navigation Company, Appellant Herein.

Receipt of a copy of the within assignment of errors is hereby admitted this 27th day of December, 1912.

NATHAN H. FRANK,

IRVING H. FRANK,

Proctors for Libelant.

[Endorsed]: Filed Dec. 31, 1912. W. B. Maling,
Clerk. By C. W. Calbreath, Deputy Clerk. [2260]

**[Stipulation That Certain Pleadings and Papers
Need not be Included in Apostles.]**

*In the District Court of the United States, in and for
the Northern District of California, First Di-
vision.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corpora-
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

IT IS HEREBY STIPULATED and agreed by
and between the parties hereto that the following
pleadings and papers need not be included in the
Apostles on Appeal herein:

1. Stipulation extending time to plead, dated
March 22, 1910.

2. Stipulation extending time to plead, dated
March 31, 1910.

3. Order extending time to plead, dated April 15,
1910.

4. Exceptions to libel.

5. Notice of motion for limitation of time, filed
October 11, 1911.

6. Notice of motion for dismissal, filed October
12, 1911.

7. Notice of motion for setting cause for argument, filed May 10, 1912.

8. Notice of motion to set exceptions to interrogatories for hearing, filed May 6, 1911.

9. Notice of motion to set cause for hearing.

10. Order extending time to answer interrogatories.

11. Notice of hearing of exceptions, filed June 22, 1910.

12. Motion to strike exceptions from files.

13. Order setting aside submission of exceptions to [2261] amended answer.

14. Notice of allowance and filing of interrogatories.

15. Affidavit in support of motion for rehearing.

16. Petition for rehearing on exceptions to interrogatories.

17. Libelant's answer to same.

18. Respondent's reply to said answer.

Dated December 7th, 1912.

NATHAN H. FRANK,

Proctor for Libelant.

McCLANAHAN & DERBY,

Proctors for Respondent.

[Endorsed]: Filed Dec. 31, 1912. W. B. Maling, Clerk. By C. W. Calbreath, Deputy Clerk. [2262]

*In the District Court of the United States, in and for
the Northern District of California, First Di-
vision.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corpora-
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

**Stipulation [That All Original Exhibits be Sent to
Circuit Court of Appeals as Original Exhibits
and Need not be Copied, etc.].**

IT IS HEREBY STIPULATED AND AGREED
by and between the parties hereto that all original
exhibits introduced in evidence in the above cause
may be sent up to the Circuit Court of Appeals as
original exhibits and need not be copied. This stipu-
lation shall not affect any rights of the libelant to
object to taxation of costs.

Dated, December 7th, 1912.

NATHAN H. FRANK,

IRVING H. FRANK,

Proctors for Libelant.

McCLANAHAN & DERBY,

Proctors for Respondent.

So ordered:

JOHN J. DE HAVEN,

Judge.

December 10, 1912.

[Endorsed]: Filed Dec. 10, 1912. W. B. Maling,
Clerk. By C. W. Calbreath, Deputy Clerk. [2263]

**[Stipulation and Order Extending Time to February
3, 1913, to File Apostles on Appeal.]**

*In the District Court of the United States, in and for
the Northern District of California, First Di-
vision.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corpora-
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

It is hereby stipulated and agreed by and between the parties in the above cause that the Matson Navigation Company, appellant herein, may have to and including February 3d, 1913, within which to procure to be filed in the United States Circuit Court of Appeals for the Ninth Circuit the apostles on appeal in the above cause certified by the Clerk of the above-named court.

Dated San Francisco, Cal., December 30th, 1912.

NATHAN H. FRANK,

Proctor for Libelant.

McCLANAHAN & DERBY,

Proctors for Respondent. [2264]

In pursuance of the foregoing stipulation IT IS HEREBY ORDERED that the Matson Navigation Company, appellant in the above cause, may have to and including February 3d, 1913, within which to procure to be filed in the United States Circuit Court of Appeals for the Ninth Circuit the apostles on appeal in the above cause certified by the clerk of the above-named court.

Dated: San Francisco, Cal., December 31st, 1912.

WM. C. VAN FLEET,

Judge.

[Endorsed]: Filed Dec. 31, 1912. W. B. Maling, Clerk. By C. W. Calbreath, Deputy Clerk. [2265]

[Certificate of Clerk U. S. District Court to Apostles, etc.]

United States of America,
Northern District of California,—ss.

I, W. B. Maling, Clerk of the District Court of the United States for the Northern District of California, do hereby certify that the twenty-two hundred and sixty-five (2265) pages, numbered from 1 to 2265, inclusive, transmitted herewith in six volumes, the sixth volume of which is attached hereto; and with the accompanying exhibits, 47 in number, transmitted under separate covers, contain, a full, true and correct transcript of the records as the same now appear on file in the said District Court; made up pursuant to and in accordance with "Praeceptum for Transcript on Appeal" (embodied in said Transcript), and the instructions of Messrs. McClanahan

and Derby, proctors for respondent and appellant, in the cause entitled: United Engineering Works, a Corporation, Libelant, vs. Matson Navigation Company, a Corporation, Respondent, No. 15,013.

I further certify that the cost of preparing and certifying to the foregoing Transcript of Appeal is the sum of Twelve Hundred and forty-three and 15/100 Dollars (\$1243.15), and that the same has been paid to me by proctors for respondent and appellant herein.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said District Court, this 24th day of February, A. D. 1913.

[Seal]

W. B. MALING,
Clerk.

By Lyle S. Morris,
Deputy Clerk U. S. District Court, Northern District of California.

[Endorsed]: No. 2251. United States Circuit Court of Appeals for the Ninth Circuit. Matson Navigation Company, a Corporation, Appellant, vs. United Engineering Works, a Corporation, Appellee. Apostles. Upon Appeal from the United States District Court for the Northern District of California, First Division.

Filed February 24, 1913.

FRANK D. MONCKTON,
Clerk of the United States Circuit Court of Appeals
for the Ninth Circuit.

By Meredith Sawyer,
Deputy Clerk.

*In the District Court of the United States in and for
the Northern District of California, First Di-
vision.*

IN ADMIRALTY—No. 15,013.

UNITED ENGINEERING WORKS, a Corpora-
tion,

Libelant,

vs.

MATSON NAVIGATION CO., a Corporation,
Respondent.

**Order Extending Time [to February 20, 1913] to File
Apostles on Appeal.**

Good cause appearing therefor, IT IS HEREBY ORDERED that the Matson Navigation Company, appellant in the above cause, may have to and including February 20th, 1913, within which to procure to be filed in the United States Circuit Court of Appeals for the Ninth Circuit the apostles on appeal in the above cause, certified by the clerk of the above-named court.

Dated: San Francisco, Cal., January 31, 1913.

WM. W. MORROW,

Judge.

[Endorsed]: No. 15,013. U. S. District Court, Northern Dist. of California, First Division. United Engineering Works, a Corp., Libelant, vs. Matson Navigation Co., a Corp., Respondent. Order Extending Time to File Apostles on Appeal. Filed Jan. 31, 1913. F. D. Monckton, Clerk.

*In the Circuit Court of Appeals of the United States,
for the Ninth Circuit.*

UNITED ENGINEERING WORKS (a Corpora-
tion),

Libelant and Appellee,
vs.

MATSON NAVIGATION COMPANY, (a Cor-
poration),

Respondent and Appellant.

**Order Extending Time [to February 25, 1913], in
Which to File Apostles on Appeal.**

Good cause appearing therefor, IT IS HEREBY ORDERED that the Matson Navigation Company, a corporation, appellant in the above cause, may have to and including the 25th day of February, 1913, within which to procure to be filed in the United States Circuit Court of Appeals for the Ninth Circuit the Apostles on Appeal in the above-entitled cause, duly certified by the clerk of the above-named court.

WM. W. MORROW,
Judge.

[Endorsed]: No. ——. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Rule 16 Enlarging Time to Feb. 25, 1913, to File Record Thereof and to Docket Case. Filed Feb. 19, 1913. F. D. Monckton, Clerk.

No. 2251. United States Circuit Court of Appeals for the Ninth Circuit. Two Orders Under Rule 16 Enlarging Time to February 25, 1913, to File Record Thereof and to Docket Case. Refiled Feb. 24, 1913. F. D. Monckton, Clerk.

Certificate of Clerk U. S. District Court to Exhibits.

I, W. B. Maling, Clerk of the District Court of the United States for the Northern District of California, hereby certify that the following described documents, forty-seven in number (28 of which said documents are attached hereto), viz.: 16 files, consisting of time-cards, etc.; 1 pencil diagram; 1 scrap-book; one time-book; 1 loose leaf time-book; 27 miscellaneous documents, consisting of letters, bills, specifications for repairs, etc., are all the original exhibits as the same now appear of record in this office, in the case of the United Engineering Works, a corporation, vs. Matson Navigation Company, a corporation, No. 15,013, and which said exhibits are transmitted to the Circuit Court of Appeals for the Ninth Circuit, with the Transcript of Record on Appeal, herewith, in accordance with Order of this Court, dated December 10th, 1912.

In witness whereof, I have hereunto set my hand and the official seal of said District Court, this 24th day of February, A. D. 1913.

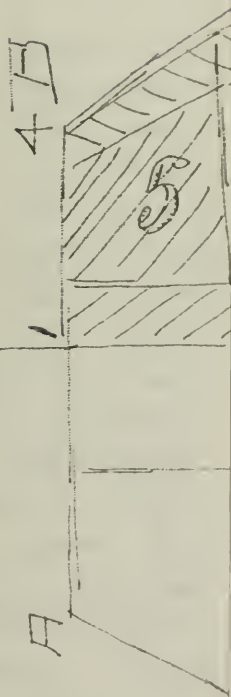
[Seal]

W. B. MALING,
Clerk.

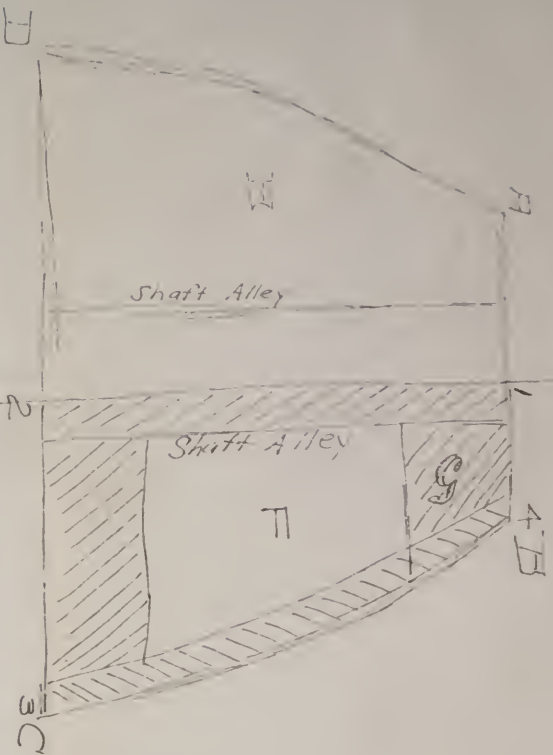
By Lyle S. Morris,
Deputy Clerk. [1*]
of original Exhibits,

*Page-number appearing at foot of page

RESPONDENTS' Kinsman No 1.



RESPONDENTS Kinsman No. 1



Case No. 2251
U. S. CIRCUIT COURT OF APPEALS
FOR THE NINTH CIRCUIT
RESPONDENTS EXHIBIT Kinsman No. 1
Received FEB 24 1915.
F. D. MONTGOMERY, Clerk

[Respondent's Exhibit Saunders No. 1.]**SPECIFICATIONS FOR REPAIRS TO S. S.
"HILONIAN."**

1. Joints between air pump body and condenser, air pump body and valve chest to be remade; first removing said pump and testing joint faces and filing same to a true surface before rejointing. Renew all studs, bolts and washers in connection with these joints. Enlarge studs on air pump, joint to condenser.

2. Remove L. P. Valve and face. Plane seats of both, replace seat and supply new fillister head bolts (best Tobin bronze—about 80 in number). Counterbore present bolt recesses and scrape valve to seat, after seat is bolted hard up. Use red lead paint only in jointing seat to cylinder. (No putty).

3. Remove present jacking worm wheel from main shaft. Make one new $\frac{1}{2}$ section; bolt sections together, bore same and keyseat, fitting all to shaft same as at present.

4. Make tight H. P. and L. P. guides for water circulation. They are arranged with steel plates at back secured by flush head screws. Place additional screws between present ones—this will require removal of guides to shop. Test guides in presence of owners representative with about 30 pounds water pressure. If plates show tendency to spring, place about 8 or 10 screwed stays in each. Reconstruct H. P. and I. P. shoes as directed.

5. Remetal H. P. and L. P. eccentric straps (4 in all) with best grade challenge metal. Bore and fit

same to sheaves and lead all eccentric rods to satisfaction of owners representative. Bearing of each strap to be passed upon before final bolting up.

6. H. P. cylinder to be bored out and ends counterbored if found necessary. Set bar to present counterbores and check to guide before starting cut. Make and fit new Bull Ring and Piston Rings.

7. A suitable finished wrought iron column with flanged feet will be properly secured to underside of H. P. cylinder (port side) and carried down to #1 housing, being secured to same by body ground bolts where possible and tap bolts where fitted bolts cannot be placed. Column will be at least 6" in diameter.

8. Ream bolt holes in #2 coupling and fit new bolts (best Norway iron) after shafts are properly lined up.

9. Strip crank shaft and all reciprocating gear. Remove crank shaft from ship by cutting bulkhead abaft engine. Test shaft in lathe to representatives satisfaction and true up all main bearings in lathe. File housings where worn and bed to same new shells (these will be supplied by Ship). After shells are properly bedded they are to be bored out in place in perfect alignment. Test lines [3] must be run through cylinders to check the bar before boring each bearing (the size of each bearing to be taken from shaft). After boring is finished shaft will be scraped and bedded to a perfect bearing and all liners and parting pieces fitted and secured in place. A Lloyds steel shaft gear must be supplied and marked for each bearing (a sketch will be provided if requested). These gauges will touch shaft at

three points showing either vertical or side drift of shaft. The line shafting will be trued up to crank shaft and tail shaft and all spring bearings raised to their proper place. Should spring bearings require remetaling a separate price will be allowed for each. The ship will be docked and stern bearing rewooded while tail shaft is drawn. Alignment of line shaft to be done after crank shaft and tail shaft jobs are completed. Thrust shaft to be removed from ship and bolted to crank shaft while it is in lathe and collars on thrust shaft to be trued up. Thrust ring to be refitted after shafting is lined up. New wheel to be fitted to the satisfaction of the owners representative.

10. Blow-off cocks on skin of ship (2 in number) removed and new cocks supplied and jointed to ships side. All sea cocks and valves to be ground in while on dock and strainers removed, cleaned and painted. New valve stem and nut supplied and fitted to main injection.

11. The valve chamber of circulating pump to be removed and a plate to take old studs fitted. This plate to have a suitable opening (10" dia.) to receive the discharge from new circulator and a support to meet the top of circulator pump body to which it must be properly fitted and secured.

12. Engine room tank tops cleaned of grease, scaled down to metal and covered with $\frac{3}{8}$ " coat of bitumastic over bitumastic solution. Bitumastic cement to be covered with 2" of concrete ($\frac{1}{2}$ best Portland cement and $\frac{1}{2}$ sharp sand).

13. The bulkheads of fore and after peak tanks

to be carefully tested, all loose or leaky rivets removed, seams caulked and new rivets driven and tanks made tight. Tanks to receive two coats of cement wash and be properly cleaned out after final test for tightness.

14. Windlass to be repaired, foc'sle head deck raised and stanchions put under as directed.

15. Ship to be docked, cleaned and painted. Paint to be furnished by owners.

All work and material furnished to be to satisfaction of owners representative. Lights and water to be furnished free. Time to be an important factor in awarding contract, 26 days from Aug. 23rd being the time limit. All bulkheads, gratings and bracings and pipes, etc. removed during period of overhauling to facilitate work must be [4] properly replaced and secured and all machinery satisfactorily reassembled before work will be considered completed. Owners reserve right to reject any and all bids. Bidders for above work will please have their representatives on board steamer at Howard #3 at 2.30 P. M. July 27th, 1909, where owners representatives will explain all necessary matters. Bids will be opened at noon Thursday, July 29th, 1909.

MATSON NAVIGATION COMPANY

268 Market Str.,
San Francisco, Cal.

July 22, 1909. [5]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit Respondent's Ex-

hibit Saunders No. 1. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[Respondent's Exhibit Kinsman No. 2.]

UNITED ENGINEERING WORKS.

San Francisco, California, September 27th, 1909.

Sold to Str. "Hilonian"—Matson Navigation Co.

- 1—Renewed #4 tank tops on port side & secured fore and aft and thwart ship Angle irons under same.
- 2—Cut 3 holes in bottom of ship to facilitate the cleaning of #4 tank.
- 3—Patches riveted over holes. 2-21½" sounding pipes supplied and fitted in #3 and #4 tanks.
- 4—Secured angle iron bars in shaft alley for new flooring support.
- 5—Supplied and fitted 4 new sheet iron guards for shaft alley couplings.
- 6—Renewed and reconstructed floor plates and supports at back of engine.
- 7—Raised floor plates over shaft and new angle bars supports fitted.
- 8—Reconstructed handrails around L. P. valve motion and I. P. and H. P. engines.
- 9—Made and fitted 2 sets iron guards for H. P. and L. P. crank pits.
- 10—Straightened and patched bulkhead on port side of L. P. valve motion and division plate in filter tank.
- 11—Re-flanged H. P. Ecc. slush pan, drain holes cut in same and plug fitted.

- 12—Supplied and fitted sheet iron cover for turning engine.
- 13—Supplied and fitted new Galv. iron casting for turning gear.
- 14—Supplied and fitted new galv. iron slush pan for L. P. Ecc.
- 15—Brackets for oil container made and fitted to bulkhead.
- 16—Container and tray fitted with lugs and secured to brackets.
- 17—Lagging cut away between boilers in engine room.
- 18—Scaled and cleaned combustion chambers sides and backs and tube sheets of boilers.
- 19—Supplied and fitted 2- $\frac{3}{4}$ " new style try cocks.
- 20—Lagging on main boilers repaired and renewed.
- 21—Made and fitted one main stop valve stem and 2 W. Iron handles.
- 22—Made 2 main and 2 donkey check valve discs & one seat.
- 23—Made and fitted 2 valve discs, seat, yoke, stem and nut for Aux. steam. Line over boilers.
- 24—Supplied and fitted strap hangers on feed and bottom blow lines.
- 25—Drilled and tapped 2 holes in donkey boiler shell for low water cocks.
- 26—Overhauled and reinstalled damper in main stack and new handle fitted to same.
- 27—Supplied and fitted one extra stanchion support under lower flange and after end of stack.

- 28—Made 2 letters M. of galv. iron and secured same to main stack.
- 29—Smokestack guys, shackles, etc., overhauled and repaired.
- 30a—Made and fitted one ladder from main to 'tween deck.
- 30b—Made and fitted one ladder from 'tween deck to lower hold.
- 31—Forged one clamp for broken stanchion on rail and fitted same.
- 32—Patched broken beam in 'tween decks and stanchion made and fitted to same.
- 33—Riveted and bolted stanchions as directed.
- 34—Removed one stanchion, new foot welded to same and re-riveted.
- 35—Forged and fitted 10 eye bolts, in hatch coamings.
- 36—Supplied bolts and nuts, washers and plates for hatch coamings.
- 37—Supplied and secured plates around stern frame and line plates around stern tube boss.
- 38—Bored out rudder head block.
- 39—Made and fitted new brass liner for same.
- 40—Made and fitted steel collar for same.
- 41—Rollers for chain leads from quadrant raised.
- 42—Bored out gudgeons on rudder post, made and fitted new brass bushing to gudgeons and bushing bored to fit pintles.
- 43—New pintles with brass liners made and fitted.
- 44—Made and fitted new locking pintle with nut and button.
- 45—Trued up key way in new propeller hub.

- 46—Made one propeller blade wrench.
- 47—Overhauled steering gear eng. rods and couplings.
- 48—Gear refitted with taper pins and oiling devices attached.
- 49—Made and fitted one brass strainer for main injection with new bolts.
- 50—Made and fitted 3 W. iron plate strainers for aux. suction.
- 51—All sea suction valves drilled and tapped.
- 52—Nipples and valves inserted and connected to stm. line.
- 53—Chipped one inch off each propeller blade and trimmed same up.
- 54—Altered and renewed pipes to engine room tank manifolds, made and fitted strap supports for same.
- 55—Made and fitted new 4" vapor line with flanges from evaporator to main condenser, new hangers fitted.
- 56—Run 2½" gal. suction line from bottom blow to fire pump.
- 57—Holes cut in one frame and floor plate to run this line.
- 58—All copper pipes connected using new joints, bolts, etc., throughout.
- 59—Renewed fittings on whistle line above umbrella.
- 60—Size of hole in lagging around H. P. Relief valve increased. [7]
- 61—Altered and repaired lagging on L. P. receiver.
- 62—Removed forward bilge pump body to braze

copper pipe, studs removed and studs replaced.

- 63—Made and fitted one C. iron bonnet for forward line pump.
- 64—Bored out air pump links, made and fitted new parting pieces, planed off brasses, made new locking collars, shortened binder bolts, trued up pins and refitted.
- 65—Face off flange of air pump floating top, made and fitted holding lugs for pump barrel, made and fitted new bronze tap bolts for same.
- 66—Made and fitted brass bushing for pump cover.
- 67—Removed circ. pump barrel to shop and faced off.
- 68—Made and fitted new cast iron gland for old circ. pump plunger.
- 69—Made two brass links and one crosshead for sanitary pump.
- 70—Turned down thrust shaft couplings and faced off.
- 71—Bearing trued up and shaft turned down at each end of thrust collars.
- 72—Chipped and filed ribs at each end of thrust box, drilled holes in same and studs fitted.
- 73—Made and fitted 2 brass stuffing boxes complete to thrust box.
- 74—Portion of shaft alley bulkhead cut out, removed one length of intermediate shaft to shop, forward coupling faced and turned down and bearing trued up.
- 75—All other int. shaft bearings trued in place.
- 76—Coupling bolt holes in int. shafting reamed out.

- 77—9 bolts renewed and fitted.
- 78—Water service for thrust reconstructed.
- 79—Trued up L. W. P. crankshaft by hand.
- 80—I. P. Crpin brasses re-metalled, bore out and re-bedded.
- 81—Horse shoes planed off on sides.
- 82—Planed off main journal binders on sides and bottom, hand holes enlarged and holes plugged.
- 83—Made and fitted 12 Norw. iron holding down bolts for spg. bearing and thrust box.
- 84—H. P. and I. P. valves removed for examination, cleaned, oiled and replaced.
- 85—Crosshead yokes of H. P and L. P. valves removed to shop.
- 86—Brasses bored and planed and yokes filed off.
- 87—New gibs and fitted to brasses, all parts refitted and valves reset.
- 88—L. P. piston and follower faced off on ring packing bearing faces.
- 89—Lug thrust spare L. P. valve stem.
- 90—Made new nut for valve. [8]
- 91—Made and fitted new binder bolts and nuts to foot of valve stem.
- 92—Removed lower head of I. P. valve chest to shop and drilled same for 1½ drain plug; holes drilled in ribs of cover.
- 93—Made and fitted 1½ brs. drain plug to I. P. valve chest cover.
- 94—Made and fitted 4 brass parting pieces for L. P. Ecc. straps.

- 95—Made and fitted iron distance pieces for H. P. Ecc. rods.
- 96—Made and fitted brs. neck bushing in L. P. valve chest.
- 97—Guide brasses of L. P. valve stem bored out and refitted.
- 98—Renewed and fitted L. P. cut off screw to block, block reconstructed and supplied with locking nut and washer.
- 99—Made wrench for locking nut of same.
- 100—Planed off parting pieces of I. P. crosshead and made new shims for same.
- 101—Repaired and refitted crosshead oil cups.
- 102—6 holes drilled in crosshead binders.
- 103—Made and fitted Ecc. strap and sheave for turning engine and renewed all bolts, nuts and washers for same.
- 104—Supplied new dowels and set screws for main journal & cr. pin locking collars.
- 105—Overhauled all throttle reversing, passover and drain rods, supplied new pins and refitted same.
- 106—Connected up all coffer drains using new jointings, bolts, nuts & washers.
- 107—Supplied and fitted 1½ brs. nipple and lunk.
- 108—Globe valve to drain on main steam line, made and fitted new brass water service to guides with galv. drains and reconnected all water service lines in engine room and shaft alley.
- 109—Made one new crankpin wrench.
- 110—Repaired old crosshead wrench as directed.

- 111—Renewed aft. beam center housing and refitted brasses in both housings.
- 112—Chipped forward patch on #3 housing.
- 113—Tested all bolts and rivets in patches on #3 housing, made and fitted 2 new bolts and nuts in same.
- 114—Made and fitted stm. gauge boards in engine and firerooms, connected up gauges, tested 3 stm. gauges, supplied 2 stm. and 2 ammonia gauges.
- 115—Made and fitted new bonnet compl. for main injection valve.
- 116—Engine room tank main-folds removed to shop and bored out.
- 117—Made and fitted new brass valve seats and discs. for same.
- 118—Supplied one oil cup for Howden draft pan engine.
- 119—Supplied one Challenge metal ring casting.
- 120—Made and fitted straps for hanging spare horse-shoe and 2 adjusting nut wrenches. [9]
- 121—Made 4-1 $\frac{1}{4}$ bolts, nuts and washers for holding down brasses in place.
- 122—Made 2 swivel eye bolt strove backs for handling main bearing crown brasses.
- 123a—Drilled holes and made eye bolts and fitted under cylinder for handling.
- 123b—Removed patch between cylinders, chipped and faced joints, renewed patch and replaced lagging.
- 124—filed up beam centers and drag link pins.

- 125—Put new asbestos tape under all cyl. heads and L. P. valves chest cover.
- 126—Overhauled revolution counter and reconstructed all rods and levers of same.
- 127—Made drawings and sketches.
- 128—Joints between air pump body and condenser, air pump body and valve chest were remade, the pump was removed and joint faces were tested and all filed to a true surface before rejoining all, bolts and washers of these joints were renewed, enlarged studs on air pump, corrugated gasket placed in joints.
- 129—Made a 12" balance cylinder completed with piston, bull ring, rings etc., and fitted over L. P. valve.
- 130—Chipped and faced same on top, made and fitted a square washer and a locking nut on the valve, lengthened the valve and finished in lathe, installed the above complete in vessel, with the necessary pipe connections, etc.
- 131—Removed the high pressure and low pressure shoes, cast and finished new ones which were lined with challenge metal, made and fitted new plates to guides.
- 132—Removed the low pressure straps and bored same out to suit eccentric sheaves, the top halves were pocketed and babbitted and refitted same aboard ship.
- 133—Turned up sheaves and two new bolts and nuts were made and fitted.
- 134—Bored out the high pressure cylinder and counterbored cast, finished and fitted new bull rings.

- 135—Cast, finished and fitted a manganese bronze patch of average 1" section to #1 housing.
- 136—Bolt holes in #2 coupling were reamed out and new bolts fitted of norway iron.
- 137—Bearings of the crankshaft were filed up and oil stoned by hand.
- 138—Removed the blow off cocks on skin of ship and supplied new cocks and installed same.
- 139—All sea valves reground and all strainers were removed and cleaned while in dock.
- 140—Made new valve stem and nut and fitted same to main injection valve. Removed valve chamber of circulating pump and fitted plate under same to take old studs fitted. [10]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals, for the Ninth Circuit. Respondent's Exhibit Kinsman 2. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[Respondent's Exhibit Christy "A."]

H. P. Gray, Secretary S. J. Eva, President J. B. Christy, Manager

UNITED ENGINEERING WORKS.

Marine and Stationary Machinery of All Kinds.

Office and Works:
254-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., July 27, 1909.

Repairs to Str. "Hilonian."

Matson Navigation Co.,

Gentlemen,—

We hereby respectfully submit a figure of Eleven

Thousand Nine Hundred Ninety-nine (\$11,999.00) Dollars on the repairs to the above steamer, all to be in strict accordance with the specifications and further we guarantee to finish the work therein specified in twenty-five Calendar days from the date of delivery of vessel at our yard.

Respectfully submitted,

UNITED ENGINEERING WORKS.

Per H. P. GRAY.

[In pencil]: Rejected, see bid Aug. 2nd, '09.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Christy "A." Received Feb. 24, 1913. F. D. Monckton, Clerk. [11]

[Respondent's Exhibit Christy "B."]

H. P. Gray, Secretary

S. J. Eva, President

J. R. Christy, Manager

UNITED ENGINEERING WORKS.

Marine and Stationary Machinery of All Kinds.

Office and Works:
254-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120.

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., August 2, 1909.

Sub.—Repairs—"Hilonian."

Matson Navigation Co.,

Gentlemen,—

We hereby respectfully submit a figure of Eleven Thousand Seven Hundred Forty-nine (\$11,749.00) Dollars on the repairs to the above steamer, all to be

in strict accordance with the specifications and further we guarantee to finish the work therein specified in twenty-five (25) Calendar days from the date of delivery of vessel at our yard.

Respectfully submitted,
UNITED ENGINEERING WORKS.

Per H. P. GRAY, Sect.

[In pencil]: This bid submitted on acc of it being worth \$250.00 to have vessel at U. E. Wks. to complete work already contracted for in the shape of retubing Donkey Boiler & retubing Howden System etc. Per Capt. Saunders.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Christy "B." Received Feb. 24, 1913.
[12]

**[Respondent's Exhibit Christy "C."]
SPECIFICATIONS FOR REPAIRS TO S. S.
"HILONIAN."**

1. Joints between air-pump body and condenser, air-pump body and valve chest to be remade, first removing said pump and testing joint faces and filing same to a true surface before rejoining. Renew all studs, bolts and washers in connection with these joints. Enlarge studs on air-pump joint to condenser.

2. Remove L. P. valve and face. Plane seats of both, replace seat and supply new fillister head bolts (best Tobin bronze—about 80 in number). Counter bore present bolts recesses and scrape valve to seat,

after seat is bolted hard up. Use red lead paint (only) in jointing seat to cylinder. (No putty).

3. Remove present jacking worm wheel from main shaft. Make one new $1\frac{1}{2}$ section, bolt sections together, bore same and key seat, fitting all to the shaft, same as at present.

4. Make tight H. P. and L. P. guides for water circulation. They are arranged with steel plates at back secured by flush head screws. Place additional screws between present ones—this will require removal of guides to shop. Test guides in presence of owners representative with about 30 pounds water pressure. If plates show tendency to spring place about 8 or 10 screwed stays in each. Reconstruct H. P. and L. P. shoes as directed.

5. Remetal H. P. and L. P. eccentric straps (4 in all) with best grade challenge metal. Bore and fit same to sheaves and lead all eccentric rods to satisfaction of owners representative. Bearing of each strap to be passed upon before final bolting up.

6. H. P. Cylinder bored out and ends counter-bored if found necessary. Set bar to present counterbores and check to guide before starting cut. Make and fit new bull ring and piston rings.

7. A suitable (finished) wrought iron column with flanged feet will be properly secured to under side of H. P. cylinder (port side) and carried down to #1 housing, being secured to same by body bound bolts where possible and tap bolts where fitted bolts cannot be placed. Column will be at least 6 in. in dia. *No less.*

8. Ream bolt holes in #2 coupling and fit new

bolts (best Norway iron) after shafts are properly lined up.

9. Strip crank-shafts and all reciprocating gear. Remove crank-shaft from ship by cutting bulkhead abaft engine. Test shaft in lathe to representative's satisfaction and true up all main bearings in lathe. File housings where worn and bed to same new shells (these will be supplied by ship). After shells are properly bedded they are to be bored out in place in perfect alignment. Test lines must be run thru cylinders to check the bar before boring each bearing (the size of each bearing to be taken from shaft). After boring is finished shaft will be scraped and bedded to a perfect bearing and all liners and parting pieces and secured in place. A Lloyds steel shaft gauge must be supplied and marked for each bearing (a sketch will be provided if requested). These gauges will touch shaft at three points showing either vertical or side drift of shaft. The line shafting will be trued up to crank shaft and tail shaft and all spring bearings raised to their proper place. (Should spring bearings require remetaling a separate price will be allowed for each). The ship will be docked and stern bearing rewooded while tail shaft is drawn. Alignment of line shaft to be done after crank (shaft) and tail (shaft) jobs are finished. Thrust shaft to be removed from ship and bolted to crank shaft while latter is in lathe and collars on thrust shaft to be trued up. Thrust ring to be refitted after shafting is lined up. New wheel to be fitted to the satisfaction of owners representative.

10. Blow-off cock on skin of ship (2 in number)

removed and new cocks supplied and jointed to ship's side. All sea cocks and valves to be [13] ground in while on dock and strainers removed, cleaned and painted. New valve stem and nut supplied and fitted to main injection.

11. The valve chamber of circulator pump to be removed and a plate to take old studs fitted. This plate to have a suitable opening (10" dia.) to receive the discharge from new circulator and a support to meet the top of circulator pump body to which it must be properly fitted and secured.

12. Engine room tank-tops cleaned of grease, scaled down to metal and covered with $\frac{3}{8}$ " coat of bitumastic over bitumastic solution. Bitumastic cement to be covered with 2" of concrete ($\frac{1}{2}$ best Portland cement and $\frac{1}{2}$ sharp sand).

13. The bulkheads of fore and after peak tanks to be carefully tested, all loose or leaky rivets removed, seams caulked and new rivets driven and tanks made tight. Tanks to receive two coats of cement wash and be properly cleaned out after final test for tightness.

14. Windlass to be repaired, foc'sle head deck raised and stanchions put under as directed.

15. Ship to be docked, cleaned and painted, paint to be furnished by owners.

All work and material furnished to be to satisfaction of owners representative. Lights and water to be furnished free. Time to be an important factor in awarding this contract, 26 days being time limit. Owners reserve right to reject any or all bids.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Christy "C." Received Feb. 24, 1913. F. D. Monckton, Clerk. [14]

[Respondent's Exhibit Liverson's "A."]

**SPECIFICATIONS FOR REPAIRS TO S. S.
"HILONIAN."**

1. Joints between air pump body and condenser, air pump body and valve chest, to be remade, first removing said air pump and testing joint faces and filing same to a true surface, before rejointing. Renew all studs, bolts and washers in connection with these joints. Enlarge studs on air pump, joint to condenser.

2. Remove L. P. valve and face. Plane seats of both, replace seat and supply new fillister head bolts (best Tobin bronze)—(about 80 in number). Counter bore present bolt recesses and scrape valve to seat, after seat is bolted hard up. Use red lead paint, in jointing seat to cylinder. (No putty).

3. Remove present jacking worm wheel from main shaft. Make one new $1\frac{1}{2}$ section, bolt sections together, bore same and key seat, fitting all to the shaft, same as at present.

4. Make tight H. P. and L. P. guides for water circulation. They are arranged with steel plates at back secured by flush head screws. Place additional screws between present ones—this will require removal of guides to shop. Test guides in presence of owners representative with about 30 pounds water

pressure. If plates show tendency to spring, place about 8 or 10 screwed stays in each. Reconstruct H. P. and I. P. shoes, as directed.

5. Remetal H. P. and L. P. eccentric straps (4 in all) with best grade challenge metal. Bore and fit same to sheaves and lead all eccentric rods to satisfaction of owners representative. Bearing of each strap to be passed upon, before final bolting up.

6. H. P. cylinder bored out and ends counter-bored, if found necessary. Set bar to present counter bores and check to guide before starting cut. Make and fit new bull ring and piston rings.

7. A suitable wrought iron column with flanged feet, will be properly secured to underside of H. P. Cylinder (port side) and carried down to #1 housing, being secured to same by body bound bolts where possible and tap bolts, where fitted bolts cannot be placed. Column will be at least 6" in dia., no less.

8. Ream bolt holes in #2 coupling and fit new bolts (best Norway iron) after shafts are properly lined up.

9. Strip crank shafts and all reciprocating gear. Remove crank shaft from ship, by cutting bulkhead abaft engine. Test shaft in lathe to representative's satisfaction and true up all main bearings in lathe. File housings where worn and bed to same, new shells (these will be supplied by ship). *Afte* shells are properly bedded they are to be bored out in place in perfect alignment. Test lines must be run through cylinders to check the bar before boring each bearing (the size of each bearing to be taken from

shaft). After boring is finished shaft will be scraped and bedded to a perfect bearing and all liners and parting pieces fitted and secured in place. A Lloyds steel shaft guage must be supplied and marked for each bearing (a sketch will be provided if requested). The guages will touch shaft at three points showing either vertical or side drift of shaft. The line shafting will be trued up to crank shaft and tail shaft and all spring bearings raised to their proper place. (Should spring bearings require re-metaling a separate price will be allowed for each). The ship will be docked and stern bearing rewooded while tail shaft is drawn. Alignment of line shaft to be done after crank and tail jobs are finished. Thrust shaft to be removed from ship and bolted to crank shaft while latter is in lathe and collars on thrust shaft to be trued up. Thrust ring to be refitted after shafting is lined up. New whell to be fitted to the satisfaction of owners representative.

10. Blow off cocks on skin of ship (two in number) removed and new cocks supplied and jointed to ships side. All sea cocks and valves to be [15] ground in while on Dock and strainers removed, cleaned and painted. New valve stem and nuts supplied and fitted to main injection.

11. The valve chamber of circulator pump to be removed and a plate to take old studs fitted. This plate to have a suitable opening (10" dia.) to receive the discharge from new circulator and a support to meet the top of circulator pump body to which it must be properly fitted and secured.

12. Engine room tank tops cleaned of grease, scaled down to metal and covered with $\frac{3}{8}$ " coat of bitumastic over bitumastic solution. Bitumastic cement to be covered with 2" of concrete ($\frac{1}{2}$ best Portland cement and $\frac{1}{2}$ sharp sand).

13. The bulkheads of fore and after peak tanks to be carefully tested, all loose or leaky rivets removed, seams caulked and new rivets driven and tanks made tight. Tanks to receive 2 coats of cement wash and be properly cleaned out after final test for tightness.

14. Windlass to be repaired, foc'sle head deck raised and stanchions put under as directed.

15. Ship to be docked, cleaned and painted, paint to be furnished by owners.

All work and material furnished to the satisfaction of owners representative. Lights and water to be furnished free. Time to be an important factor in awarding this contract. Owners reserve right to reject any and all bids. (26 days time limit.)

Bidders for above work will please have their representative on board vessel at 2 P. M. Saturday, July 24th, 1909, at Howard Street Dock, Pier # 10, where the owners' representative will explain all necessary matters.

Bids will be opened at noon Tuesday, July 27th, 1909.

MATSON NAVIGATION COMPANY,

268 Market Street,

San Francisco, Cal.

July 22, 1909.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Liverson's "A." Received Feb. 24, 1913. F. D. Monckton, Clerk. [16]

[Respondent's Exhibit Gardner No. 1.]

**SPECIFICATIONS FOR REPAIRS TO S. S.
"HILONIAN."**

1. Joints between air pump body and condenser, air pump body and valve chest, to be remade, first removing said air pump and testing joint faces and filing same to a true surface, before rejoining. Renew all studs, bolts and washers in connection with these joints. Enlarge studs on air pump, joint to condenser.

"This work was completed, as called for in specifications, corrugated copper gaskets being used for jointing. The studs on condenser joint were not enlarged, but additional studs were fitted."

2. Remove L. P. valve and face. Plane seats of both, replace seat and supply new fillister head bolts (best Tobin bronze)—(about 80 in number). Counter bore present bolt recesses and scrape valve to seat, after seat is bolted hard up. Use red lead paint, in jointing seat to cylinder. (No putty).

"This work was found unnecessary, but in recompense a 12" balance cylinder complete with piston, bull ring, rings, etc., was fitted over L. P. valve. Valve was chipped and faced on top, a square washer of adequate thickness and a locking nut fitted on valve stem to suit and valve stem lengthened and properly finished in lathe. The

whole being fitted up in place and balance cylinder connected to condenser with $\frac{3}{4}$ " piping, as directed."

3. Remove present jacking worm wheel from main shaft. Make one new $\frac{1}{2}$ section, bolt sections together, bore same and key-seat, fitting all to the shaft, same as at present."

"This work was completed as specified."

4. Make tight H. P. and L. P. guides for water circulation. They are arranged with steel plates at back secured by flush head screws. Place additional screws between present ones,—this will require removal of guides to shop. Test guides in presence of owners representative with about 30 pounds water pressure. If plates show tendency to spring, place about 8 or 10 screwed stays in each. Reconstruct H. P. and I. P. shoes, as directed.

"This work was done as specified, with the exception that instead of reconstructing H. P. and I. P. shoes, new ones were cast and filled with #1 Challenge metal, (metal only to be paid for—92 lbs. in each). Guides were not restayed, but new and heavier plates were fitted."

5. Remetal H. P. and L. P. eccentric straps (4 in all) with best grade challenge metal. Bore and fit same to sheaves and lead all eccentric rods to satisfaction of owners representative. Bearing of each strap to be passed upon, before final bolting up.

"The H. P. eccentric straps were not remetalled. The L. P. straps were bored out, brass liners cast and fitted; these were bored out to suit sheaves and top halves pocketed and babbited. The completed

straps were properly fitted to sheaves in shop and refitted on board vessel. Bronze in liners for this work 150# each. Challenge metal 36# each. As recompense for not remetalling H. P. straps the L. P. sheaves were turned up in lathe and 2 new bolts and nuts fitted in same." [17]

6. H. P. cylinder bored out and ends counter-bored, if found necessary. Set bar to present counter bores and check to guide before starting cut. Make and fit new bull ring and piston rings.

"Work completed as specified."

7. A suitable wrought iron column with flanged feet, will be properly secured to underside of H. P. cylinder (port side) and carried down to #1 housing, being secured to same by body bound bolts where possible and tap bolts where fitted bolts cannot be placed. Column will be at least 6" in dia., no less.

"Instead of the column support called for, a manganese bronze patch of average 1" section was carefully fitted to #1 housing and thoroughly secured with machined bolts 1 $\frac{1}{4}$ " dia. Where this was not practicable 1" tap bolts were used. (Weight of bronze 897#)."

8. Ream bolt holes in #2 coupling and fit new bolts (best Norway iron) after shafts are properly lined up.

"Work completed as called for."

9. Strip crank shafts and all reciprocating gear. Remove crank shaft from ship, by cutting bulkhead abaft engine. Test shaft in lathe to representative's satisfaction and true up all main bearings in lathe. File housings where worn and bed to same, new

shalls (these will be supplied by ship). After shells are properly bedded they are to be bored out in place in perfect alignment. Test lines must be run through cylinders to check the bar before boring each bearing (the size of each bearing to be taken from shaft). After boring is finished shaft will be scraped and bedded to a perfect bearing and all liners and parting pieces fitted and secured in place. A Lloyds steel shaft gauge must be supplied and marked for each bearing (a sketch will be provided if requested). The gauges will touch shaft at three points showing either vertical or side drift of shaft. The line shafting will be trued up to crank shaft and tail shaft and all spring bearings raised to their proper place. (Should spring bearings require remetaling a separate price will be allowed for each). The ship will be docked and stern bearing rewooded while tail shaft is drawn. Alignment of line shaft to be done after crank and tail jobs are finished. Thrust shaft to be removed from ship and bolted to crank shaft while latter is in lathe and collars on thrust shaft to be trued up. Thrust ring to be refitted after shafting is lined up. New wheel to be fitted to the satisfaction of owners representative.

“The crank-shaft (calling for removal) was not taken to shop; a cast iron cylinder was made and bored out to size of shaft bearings. With the aid of this all the bearings—4 in number—were filed up and oil-stoned.”

“Other work completed as specified, thrust shaft and one length intermediate shaft being removed to shop.”

10. Blow off cocks on skin of ship (two in number) removed and new cocks supplied and jointed to ships side. All sea cocks and valves to be ground in while on Dock and strainers removed, cleaned and painted. New valve stem and nuts supplied and fitted to main injection.

“Work performed as called for.” [18]

11. The valve chamber of circulating pump to be removed and a plate to take old studs fitted. This plate to have a suitable opening (10" dia.) to receive the discharge from new circulator and a support to meet the top of circulator pump body to which it must be properly fitted and secured.

“Work performed as called for.”

12. Engine room tank tops cleaned of grease, scaled down to metal and covered with $\frac{3}{8}$ " coat of bitumastic over bitumastic solution. Bitumastic cement to be covered with 2" of concrete ($\frac{1}{2}$ best Portland cement and $\frac{1}{2}$ sharp sand).

“Work performed as called for. Cemented under boilers only.”

13. The bulkheads of fore and after peak tanks to be carefully tested, all loose or leaky rivets removed, seams caulked and new rivets driven and tanks made tight. Tanks to receive two coats of cement wash and be properly cleaned out after final test for tightness.

“Work performed as called for.”

14. Windlass to be repaired, foc'sle head deck raised and stanchions put under as directed.

“Windlass repairs called for were not done, but in recompense, 2 channel iron supports were sup-

plied and fitted under break of foc'sle head.

15. Ship to be docked, cleaned and painted, paint to be furnished by owners.

“This work completed as specified.”

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Gardner No. 1. Received Feb. 24, 1913. F. D. Monckton, Clerk. [19]

[Respondent's Exhibit Heynemann No. 4.]

Agreed between Mr. Gardner and L. H.

Apr. 29/10.

1			800
2			25
3			27
4			40
5			30
6 & 7			500
8	Bill	Sept. 27.	71.00
9			40
10			16
11			11
12			20
13	3 A		30
14			35
15			8
16			3
17			15
18			100
19			15
20			40
21			25
22 & 23			50
24			20
25			8
26	Bill	Sept. 24.	33.79
27	"	"	49.05
28			35
29	"	"	20.00
30a 30b			70
31			6
32-33-34	A	14	54
35-36			90
37			50
38-39-40-41			320
42-43-44			2100
			<hr/>
			173.84 4583

		173.84 15.00	4583	Bro't for'd
45	A 9			
46			25	
47 & 48			60	
49 & 50			75	
51-52			87	
53	A 9	15.00		
54			73	
55	A 9 if new		30	
56-57			66	
58			50	
59	Sept. 24.	4.00		
60			15	
61			75	
62	A 1	20.00		
63			18	
64			55	
65			30	
66			15	
67			20	
68			15	
69			20	
70-71	A 9	75.00		
72-73			75	
74	A 9	204.20		
75	A 9	95.20		
76	A 9	85.00		
77	A 9	190.00		
78	A 9	28.00		
79	A 9	17.00		
80	A 9	75.20		
81	A 9	20.40		
82	A 9	61.20	15	
83	A 9	62.70		
84			35	
85-86-87	A 2 L P		125	
		<hr/>	<hr/>	
		1141.74	5562	

		1141.74	5562	Bro't for'd.
88			60 00	
89-90-91	A 2	41.18		
92-93			35 00	
94	A 5	31.00		
95	A 5	8.00		
96	A 2	12.00		
97	A 2	12.00		
98			30 00	
99			5 00	
100			15 00	
101			12 00	
102			8 50	
103			35 00	
104	A 9	5.00		
105			30 00	
106			25 00	
107	A 4		25 00	
108	A 4; A 9	90.00		
	40.00 50.00			
109			40 00	
110			10 00	
111			50 00	
112			7 00	
113			20 00	
114			85 00	
115			48 00	
116-117			20 00	
118			6 00	
119			15 00	
120			10 00	
121			10 00	
122			12 00	
123a	A 9†		30 00	
123b			35 00	
124			25 00	
125	A 9	34.00		
126			15 00	
		<hr/>	<hr/>	
		1374.92	6280.50	

		1374.92	6280.50	Bro't For'd
127				
128	A 1	171.00		
129-130	A 2	285.00		
131	A 4	235.00		
132-133	A 5	140.00		
134	A 6	200.00		
135	A 7	400.00		
136	A 9	94.00		
137	A 9	400.00		
138	A 10	82.00		
139	A 10	60.00		
140	A 11	135.00		
		<hr/>	<hr/>	
		3576.92	6280.50	9857.42 Total

Extra Bills (agreed prices)				Amt. of Bill	Rejected	Allowed.
Schedule	2.	Sept. 24.	misc. materials and sup- plies	170.11		170.11
"	3.	" 30.	L. P. follower—set H. P. rings	226.35		226.35
"	"	Oct. 25.	Sundry overhauling & sup- plies	540.61		540.61
"	4.	Sept. 27.	Spring bearings reme- talled	330.00		330.00
"	"	" 27.	Thrust horseshoes reme- talled	146.88	146.88	
"	"	" 27.	I. P. Piston rod ground off	50.00	25.00	25.00
"	"	" 27.	Five floor-plates.....	50.00		50.00
"	"	" 27.	New elbow (Donkey boiler)	40.00		40.00
"	5.	" 27.	Eng. room platform.....	190.00		190.00
"	6.	" 27.	Boiler work	140.00		140.00
"	7.	" 30.	Locking clutch (Rocker arm)	140.00		140.00
"	8.	" 22.	Four new bearings main journals	1350.00		1350.00
"	9.	" 24.	New stack.....	900.00		900.00
"	"	" 24.	Casing enlarged.....	60.00	60.00	
"	"	" 24.	New supports.....	180.00	180.00	
"	10.	" 21.	Howden Downdraft.....	725.00		725.00
				<hr/>	<hr/>	<hr/>
				5238.95	411.88	4827.07
Schedules 2 and 3 already paid						937.07
						<hr/>
Balance due U. E. Wks. on a/c. extra bills.....						3890.00

[23]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Cir-
cuit. Respondents' Exhibit Heynemann No. 4. Received Feb. 24, 1913.
F. D. Monckton, Clerk. [23]

[Respondent's Exhibit Matson No. 1.]

H. P. Gray, Secretary S. J. Eva, President J. R. Christy, Manager

UNITED ENGINEERING WORKS,

Marine and Stationary Machinery of All Kinds.

Office and Works:
254-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120.

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., August 31, 1909.

S. S. "Hilonian."

Matson Navigation Co.

Gentlemen:

We propose to replate the top of after double bot-
tom tank where bulged, on one side only, from shaft
alley out to margin angle and from shaft alley bulk-
head to next bulkhead directly forward of same,
for the sum of One thousand two hundred fifty
(\$1250.00) Dollars. This price includes the chem-
ists charge and such stiffening as may be required,
also angles supporting tank top plating, but does not
include cleaning of tank or testing of same. We
will guarantee to make tight all the new work but
if any leakage in old work shows up on testing an
extra price will be made upon all such old work as
it may be deemed necessary to make tight. The
above figure contemplates the renewal of the angle
at the top of margin in way of new plating.

Respectfully Submitted.

UNITED ENGINEERING WORKS,

per H. P. GRAY.

[In pencil]: ~~Rejected.~~

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Matson No. 1. Received Feb. 24, 1913. F. D. Monckton, Clerk. [24]

[Respondent's Exhibit Matson No. 2.]

H. P. Gray, Secretary S. J. Eva, President J. R. Christy, Manager

UNITED ENGINEERING WORKS,

Marine and Stationary Machinery of All Kinds.

Office and Works:
254-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120.

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., December 9, 1909.

Attention of Capt. Wm. Matson.

Matson Navigation Co.,

268 Market St.,

San Francisco, Calif.

Gentlemen:

Inclosed please find statement for work performed on your Str. "Hilonian" for which we would be pleased to receive a check on or before the 11th inst. If you are not prepared to pay this amount within the time specified you will kindly let us know your reasons for not paying same.

Yours truly,

UNITED ENGINEERING WORKS,

per SAM. J. EVA, Pres.

1 Inclosure.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit

Matson's No. 2. Received Feb. 24, 1913. F. D.
Monckton, Clerk. [25]

[Respondent's Exhibit Matson No. 3.]

H. P. Gray, Secretary S. J. Eva, President J. R. Christy, Manager

UNITED ENGINEERING WORKS,

Marine and Stationary Machinery of All Kinds.

Office and Works:
254-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120.

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., December 11, 1909.

Attention of Capt. Wm. Matson.

Matson Navigation Co.,

268 Market St.,

San Francisco, Calif.

Gentlemen:

The writer has tried several times to get you by phone, to ascertain what is your final decision regarding the payment of bills rendered for work performed on your Str. "Hilonian," so we write you to inform you that we have instructed Mr. Frank who will represent us in this case to take such steps to protect our interest and proceed to collect the several bills as rendered.

Yours very truly,

UNITED ENGINEERING WORKS,

SAM. J. EVA, Pres.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Matson's No. 3. Received Feb. 24, 1913. F. D. Monckton, Clerk. [26]

[Respondent's Exhibit Matson No. 4.]

[Written on Blank of Western Union Telegraph Company.]

November 26, 1909.

Capt. Wm. Matson,

Hotel Belmont,

New York City, N. Y.

I made check United Engineering Works Fifteen Thousand Five hundred dollars contract Hilonian and sundry bills ordered they refused accept same unless shown on account which I would not do.

HARRY B. GREGG.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Matson's No. 4. Received Feb. 24, 1913. F. D. Monckton, Clerk. [27]

[Respondent's Exhibit Matson No. 5.]

Address All Business Communications to Union Iron Works Co.

J. A. McGregor, President.

Arnold Foster, Treas. & Sec'y.

UNION IRON WORKS CO.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.
Cable Address "Union"

Works and Main Offices:
20th & Michigan Streets.
City Office 320 Market St.

San Francisco, July 27th, 1909.

Matson Navigation Company,

San Francisco, Cal.

Gentlemen:—

Replying to your inquiry, we offer to make all repairs on your "HILONAN," as per specifications

submitted under date of July 22nd, for the sum of \$12,600.00. We can make these repairs in the time contemplated, 26 days.

It is further understood, that should we be awarded the contract, repairs are to be made alongside of wharf at our Works.

Trusting that this will meet with your approval, and we may receive your valued order, we remain

Yours truly,

UNION IRON WORKS COMPANY.

By GEO. A. ARMES,

GAA/J.

Engineer-in-chief.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Matson No. 5. Received Feb. 24, 1913. F. D. Monckton, Clerk. [28]

[Respondent's Exhibit Matson No. 6.]

Address All Business Communications to Union Iron
Works Co.

J. A. McGregor, President.

Arnold Foster, Treas. & Sec'y.

UNION IRON WORKS CO.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.
Cable Address "Union."

Works and Main Offices:
20th & Michigan Streets.
City Office 320 Market St.

San Francisco, August 9, 1909.

Attention Capt. Matson.

Matson Navigation Company,

268 Market St.,

San Francisco, Cal.,

Gentlemen,—

Replying to your verbal inquiry, and supplement-
ing our bid of July 27th, we offer to make repairs
to your SS "HILONIAN," all as per specifications
submitted, for the sum of TWELVE THOUSAND
FIVE HUNDRED (\$12,500.00) DOLLARS. This
price includes the necessary overtime to complete
repairs within the time specified.

Trusting this will meet with your approval, we are,

Yours very truly,

UNION IRON WORKS COMPANY.

By GEO. A. ARMES,

Engineer-in-chief.

GAA/L

[Endorsed]: No. 2251. U. S. Circuit Court of
Appeals for the Ninth Circuit. Respondent's Ex-
hibit Matson's Ex. 6. Received Feb. 24, 1913. F. D.
Monckton, Clerk. [29]

[Respondent's Exhibit Matson No. 7.]

Address All Business Communications to Risdon
Iron Works.

Codes, { A. B. C., Moreing & Neal,
Lieber's Western Union,
Bedford McNeill.

1909

Augustus Taylor, President.
W. H. Taylor, Jr., Vice-President.
H. D. Rogers, Secretary.
R. H. Postlethwaite, Superintendent.
J. W. Rolph, Auditor.

RISDON IRON AND LOCOMOTIVE WORKS.

Mining, Marine, Electrical,
Hydraulic and Gold Dredging
Machinery.

SHIP BUILDING YARDS.

Cable Address: "Risdon's"

San Francisco.

Office:

Corner of Steuart and Folsom Streets

All Agreements are Contingent upon
Strikes, Fires, Accidents or Causes
Beyond Our Control. Unless Other-
wise Specified, All Prices Quoted
are for Prompt Cash. Quotations
Subject to Change Without Notice.

Member of the
California Metal Trades Association

San Francisco, July 30th, 1909.

Matson Navigation Company,

#268 Market Street, San Francisco.

Gentlemen:—

We offer to do repairs to the steamship "HI-
LONIAN" in accordance with your specifications,
for the sum of Thirteen Thousand Five Hundred
Forty Two Dollars (\$13,542.00).

We could complete the work inside of time speci-
fied.

Trusting that we may receive your valued order,
we are,

Yours truly,

RISDON IRON & LOCOMOTIVE WORKS,
By W. H. TAYLOR, Jr.
Vice-President.

WHT/H.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Matson's 7. Received Feb. 24, 1913. F. D. Monckton, Clerk. [30]

[Libelant's Exhibit Heynemann No. 1.]

FRED. A. GARDNER,

Consulting Engineer and Marine Surveyor,

528 Merchants Exchange Building,

Surveyor to Lloyd's Agent.

San Francisco, April 29th, 1910.

Matson Navigation Company,

268 Market Street,

City.

Gentlemen:—

In reply to your favor under date of April 16th, 1910, we the undersigned respectfully submit the following:—

With reference to work done on Str. "HILO-NIAN" laid up at United Engineering Works between the dates of August 23rd and September 24th, 1909, inclusive, the bill of United Engineering Works presented to your company under date of September 27th, 1909, (amount \$30,018.83) which in the following we will call bill "A" and certain other

bills which were handed us under the heading "Undisputed Bills" which we will designate as bills "B":

With reference to bill "A" we have segregated the headings of this bill and these headings amount to 140 items.

Bill "A" consists of work done under contract and extra work. The contract price as per the offer of United Engineering Works under date of

August 2nd, 1909, was \$11,749.00 and 25 ^{calendar time limit} days

~~[with the proviso that this was to be an upset price and if the work could be done for less than the above amount figuring best obtainable rates both for material and labor, then the steamship company should receive the benefit of same.]~~ This difference between the contract price and the amount for which

the work could ^{There was a benefit coming to the} [31] be done we have designated

^{it was dec. not to be} Matson Navigation Co. if the crank shaft did not come out, out of the under the caption "Benefits". Besides the above ship.

benefits we have also figured in certain allowances for scrap material as will appear later on.

With reference to the bills "B" there are besides those enumerated in your schedule form #4 to #10 inclusive, three other bills as follows:—

September 24th, 1909. For miscellaneous material supplied . . . \$170.11

Oct.

September 30th, 1909. One spare L. P. piston follower and one spare set of H. P. rings 226.35

and one bill of

October 25th, 1909. For sundry overhaul-

ing 540.61

[In pencil:]

937.07

These above bills we understand have been paid.

With reference to schedule #9 consisting of three bills under date of September 24th, 1909, for \$1140.00 in total, we reject bill of air casing of \$60.00 and stack supports of \$180.00, for the reason that in our opinion these last two items should have been covered by the contract under schedule #9 under date of September 24th, 1909—furnishing and installing one new stack.

We further find the bill of September 27th, 1909, schedule #4 horse shoes in thrust shaft remetaled—\$146.88 should be rejected as in our opinion it is covered by item #9 of the original contract.

With reference to bill of September 27th, 1909, schedule #4—\$50.00 for the grinding of the I. P. piston rod we find that the same has not been ground as agreed, but only turned and we have made a deduction of \$25.00 on this bill. Total allowance on the bills under above schedules is \$3890.00. [32]

With reference to the extra work contained in bill "A" we find a fair value for the same to be \$6280.50.

With reference to the overtime worked on contract items we do not see that the ironworks are entitled to it for the reason that the original bill specified 25 days which we consider sufficient to cover the work contracted for.

With reference to the overtime on the extra work

we do not find any reliable schedule which would enable us to determine the amount of overtime worked. We in fact do not know that any overtime was necessary in the performance of extra work.

Another point that would make it difficult for us to determine this overtime is the fact that we are not supplied with the dates on which these extra orders were given. We do believe, however, that a certain amount of overtime was worked by reason of the extra work and we have made an arbitrary allowance of \$2000.00 over and above the amount that we consider a fair allowance for the extra work to wit: \$6280.50.

With reference to "Benefits" we find on November 1st, 1909, a credit on scrap material taken from the steamer and retained by the United Engineering Works of \$284.94. Another bill November 20th, for \$235.07, another bill December 2nd, 1909, for \$15.75, a total of \$535.76 for scrap.

With reference to the benefits coming to the steamship company for certain work not done and certain material not furnished as per original contract we find a fair value for this amount to be ~~\$1039.25~~
1398.25

To recapitulate we find as follows: [33]

Contract price	\$11,749.00	
Allowed bills as per schedules		
(bills "B")	3,890.00	
Extra work contained in bill		
"A"	6,280.50	
Overtime allowed on extra		
work	2,000.00	
	<hr/>	
	Total.....	\$23,919.50
Less		
Scrap	535.76	
Benefits	1,398.25	
	<hr/>	
	\$1,934.01	1,934.01
		<hr/>
	Balance.....	\$21,985.49

We find that the above figure will be a fair compensation to the United Engineering Works to cover the work performed on Steamer "HILONIAN" between the dates of August 23rd, 1909, and September 24th, 1909, inclusive.

Yours truly,

FRED. A. GARDNER.

L. HEYNEMANN.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Libelant's Exhibit Heynemann No. 1. Received Feb. 24, 1913. F. D. Monckton, Clerk. [34]

[Libelant's Exhibit Heynemann No. 2.]

April 16, 1910.

Messrs. Matson Navigation Co.,

San Francisco.

Gentlemen:—

Re United Engineering Works v. Matson Navigation Co.

It is important that Mr. Gardiner in conjunction with another engineer of standing do the following at once:

a. Go over the itemized statement of work alleged to have been done under the first cause of action in the libel, and ascertain and segregate:

(1) The work shown therein as covered by the original specifications.

(2) The work covered by other contracts.

(3) The unprovided for balance.

b. Give us the fair and reasonable value of this “unprovided for balance” or work as of the date of September, 1909.

c. Give us the fair and reasonable value of the work which was entirely omitted from the original specifications as of the date of September, 1909.

It may be just as well to have your Mr. Diericx collaborate with these two gentlemen in this work and

make their report at an early a date as possible.

Respectfully yours,

EBM. [35]

FRED. A. GARDNER

Consulting Engineer and Marine Surveyor
Surveyor to Lloyd's Agent.

528 Merchants Exchange Building,
San Francisco, Cal.

San Francisco, April 29th, 1910.

Matson Navigation Company,
268 Market Street,
City.

Gentlemen:—

In reply to your favor under date of April 16th, 1910, we the undersigned respectfully submit the following:—

With reference to work done on Str. "HILO-NIAN" laid up at United Engineering Works between dates of August 23rd and September 24th, 1909, inclusive, the bill of United Engineering Works presented to your company under date of September 27th, 1909, (amount \$30,018.83) which in the following we will call bill "A" and certain other bills which were handed us under the heading "Undisputed Bills" which we will designate as bills "B":

With reference to bill "A" we have segregated the headings of this bill and these headings amount to 140 items.

Bill "A" consists of work done under contract and extra work. The contract price as per the offer of United Engineering Works under date of August 2nd, 1909, was \$11,749.00 and 25 calendar days time

limit. There was a benefit coming to the Matson Navigation Company if it was decided not to take the crankshaft out of the ship.

With reference to the bills "B" there are besides those [36] enumerated in your schedule form #4 to #10 inclusive, three other bills as follows:—

September 24th, 1909. For miscellaneous material supplied.....	\$170.11
September 30th, 1909. One spare L. P. piston follower and one spare set of H. P. rings.....	226.35
and one bill of	
October 25th, 1909. For sundry overhauling.....	540.61

[In pencil:]	937.07
--------------	--------

These above bills we understand have been paid.

With reference to schedule #9 consisting of three bills under date of September 24th, 1909, for \$1140.00 in total, we reject bill of air casing of \$60.00 and stack supports of \$180.00, for the reason that in our opinion these last two items should have been covered by the contract under schedule #9 under date of September 24th, 1909—furnishing and installing one new stack.

We further find the bill of September 27th, 1909, schedule #4 horse shoes in thrust shaft remetaled—\$146.88 should be rejected as in our opinion it is covered by item #9 of the original contract.

With reference to bill of September 27th, 1909, schedule #4—\$50.00 for the grinding of the I. P. piston rod we find that the same has not been ground

but only turned and we have made a deduction of \$25.00 on this bill. The total allowance on the bills under above schedules is \$3890.00.

With reference to the extra work contained in bill "A" we find a fair value for the same to be \$6280.50.

With reference to the overtime worked on contract we do not see that the ironworks are entitled to it for the reason [37] that the original bill specified 25 days which we consider sufficient to cover the work contracted for.

With reference to the overtime on the extra work we do not find any reliable schedule which would enable us to determine the amount of overtime worked. We in fact do not know that any overtime was necessary in the performance of extra work.

Another point that would make it difficult for us to determine this overtime is the fact that we are not supplied with the dates on which these extra orders were given. We do believe, however, that a certain amount of overtime was worked by reason of the extra work and we have made an arbitrary allowance of \$2000.00 over and above the amount that we consider a fair allowance for the extra work, to wit: \$6280.50.

With reference to "Benefits" we find on November 1st, 1909, a credit on scrap material taken from the steamer and retained by the United Engineering Works of \$284.94. Another Bill November 20th, for \$235.07, another bill December 2nd, 1909, for \$15.75, a total of \$535.76 for scrap.

With reference to the benefits coming to the

steamship company for certain work not done and certain material not furnished in the removal of the crankshaft, we find a fair value for this amount to be \$1398.25. To recapitulate we find as follows:—

[38]

Contract price.....	\$11,749.00	
Allowed bills as per schedules		
(bills "B").....	3,890.00	
Extra work contained in bill		
"A"	6,280.50	
Overtime allowed on extra		
work..	2,000.00	
	Total	\$23,919.00
Less		
Scrap.....	535.76	
Benefits... ..	1,398.25	1,934.01
	\$1934.01	
	Balance.....	\$21,985.49
[In pencil:]		937.07
		22922.56

We find that the above figure will be a fair compensation to the United Engineering Works to cover the work performed on Steamer "Hilonian" between dates of August 23rd, 1909, and September 24th, 1909, inclusive.

Yours very truly,

FRED. A. GARDNER.

L. HEYNEMANN. [39]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Libellant's Exhibit

Heynemann No. 2. Received Feb. 24, 1913. F. D.
Monckton, Clerk.

[**Libelant's Exhibit Klitgaard No. 2.**]

**WORK PERFORMED BUT NOT CON-
TRACTED FOR.**

- 1—The thrust shaft couplings were turned down to a smooth surface and faced off. Bearing trued up and shaft turned down, at each end of thrust collars to secure an efficient bearing surface for new thrust stuffing boxes.
- 2—The first length of intermediate shaft was removed to shop, forward coupling faced and turned down to correspond with thrust shaft coupling. Bearing trued up. (This work necessitated the removal of a portion of shaft alley bulk-head).
- 3—All remaining intermediate shaft bearings (3 in number) were trued up by hand, being carefully filed and oil-stoned.
- 4—All coupling bolt-holes in intermediate shafting (35 in number) were reamed out, to secure a clean smooth bearing for bolts; 9 new Norway iron bolts being forged and carefully fitted (to replace condemned bolts).
- 5—Ribbs at each end of thrust box, chipped and filed. Holes drilled and tapped in same and studs inserted, as directed and 2 new yellow metal stuffing boxes, complete with glands, stop plates and packing, supplied and fitted to thrust box.

- 6—I. P. crank-pin, being slightly crowned, was trued up by hand, being filed and oil-stoned, to the satisfaction of the engineer in charge.
- 7—I. P. crank pin brasses re-metalled (#1 Challenge) bored out oil-grooved and properly bedded to pin (weight of metal—153 lbs.).
- 8—12 new Norway iron “holding down” stud bolts, nuts and washers for spring bearings and thrust box, supplied and fitted.
- 9—Horse-shoes planed on sides to secure a true surface for adjusting nuts. [40]
- CARL E. KLITGAARD,
Chief Engr.
- 10—Main journal binders planed off, on sides and bottom, hand-holes enlarged and unnecessary holes plugged.
- 11—4 new manganese bronze parting pieces, for L. P. eccentric straps, cast and fitted.
- H. P.
- 12—21½" iron distance pieces for foot of ~~F.C.~~ ecc. rods supplied and fitted.
- 13—Spare L. P. valve stem lengthened and turned to suit new conditions. New nut supplied for valve and new binder bolts and nuts forged and fitted in foot of stem.
- 14—L. P. piston and follower faced off on ring packing, bearing faces.
- 15—Thread on I. P. rod chased up and new bronze nut cast and fitted.
- 16—H. P. and I. P. valves removed for examination.

Valves and chests cleaned, oiled and valves replaced.

cross

- 17—H. P. and L. P. valve ~~and~~ head yokes removed to shop. Yokes filed to a square and smooth surface, brasses bored and planed; new gibs cast and fitted to brasses; brasses fitted to yokes; yokes re-keyed to valve-stem and valve reset.
- 18—Lower head of I. P. valve chest removed to shop and drilled as directed to receive a $1\frac{1}{2}$ " flanged angle drain-plug; limber holes drilled in ribs of cover and cover replaced.
- 19— $1\frac{1}{2}$ " flanged brass angle drain plug, cast and fitted on lower head of I. P. valve chest cover, as directed.
- 20— $1\frac{1}{2}$ " brass nipple and extra heavy Lunkenheimer globe valve supplied and fitted to drain in main steam line.
- 21—All coffer drains properly connected, new jointing, bolts, nuts and washers, being used throughout.
- 22—All throttle, reversing, passover and drain rods overhauled [41] holes being bored out, new pins supplied and all satisfactorily refitted.

CARL E. KLITGAARD,

Chief Engr.

- 23—New brass neck bush, cast, bored and fitted in L. P. valve chest.
- 24—L. P. valve stem guide brasses bored out and refitted.

- 25—Aft. beam center housing renewed and brasses in both housings refitted.
- 26—Parting pieces in I. P. X head brasses planed off and new shims supplied.
- 27—L. P. “cut off” screw renewed and nut refitted to block, the block being reconstructed and supplied with locking nut and washer as directed.
- 28—Sheet steel wrench supplied for locking nut on L. P. “cut off.”
- 29—New steel “star” crank pin wrench forged and fitted.
- 30—Old X head wrench repaired, as directed.
- 31—Short air pump links bored out, brasses planed off, new parting pieces supplied and fitted, binder bolts shortened to suit and 8 new locking collars and set screws supplied. Pins trued up and all properly refitted.
- 32—New brass bushing for air pump cover cast, bored and fitted.
- 33—Air pump floating top flange faced off, holding lugs for floating top made and fitted to air pump barrel and new bronze “holding down” tap bolts supplied and screwed in place.
- 34—Circulating pump barrel, removed to shop and faced off, to suit new conditions of air pump.
- 35—C. I. gland supplied and fitted, to act as guide for old circulating pump plunger.
- 36—new 5/16” sheet steel steam gauge “boards” supplied for engine and fire room. Gauges fitted to “boards” and boards to place, all as

directed and gauges properly connected.

[42]

CARL E. KLITGAARD,

Chief Engr.

- 37--Forward cast steel patch on #3 housing chipped, to give I. P. crank-pin more fore and aft clearance.
- 38—All bolts and rivets in patches tested, two new mild steel machined bolts and nuts, supplied and fitted (#3 housing).
- 39—C. I. bonnet for forward line pump, cast and fitted.
- 40—Forward bilge pump body removed to braze copper pipe connection, studs on body and jointing renewed and body replaced.
- 41—4-11¼" dummy bolts, nuts and washers supplied (for holding crown brasses in place when overhauling).
- strong
- 42—Two swivel eye bolt ~~sponge~~ backs, for handling main bearing crown brasses, supplied.
- 43—Eye-bolt holes drilled and tapped and various shaped eye-bolts supplied and fitted under cylinder, as directed, to facilitate the handling of reciprocating parts.
- 44—Engine room tanks, manifold removed to shop, bored out, new brass seats and valve discs cast and fitted.
- 45—New bonnet complete with yoke, stem and extension handle with universal joint attachment supplied and fitted for main injection valve.
- 46—Straps for hanging spare horse-shoe and 2 ad-

justing nut wrenches, supplied and fitted.

47—Cross head oil cups, repaired and refitted (6 off).

48—2 piston valves and stems for steering engine supplied.

49—2 brass links and 1x head for sanitary pump supplied.

50—One Challenge metal “ring casting” supplied
5" o. dia. x 2¾" in. dia. x 6" long.

51—3 steam gauges tested and 2 steam and 2 ammonia gauges supplied. [43]

CARL E. KLITGAARD,

Chief Engr.

52—One new oil cup supplied for Howden draft fan engine.

53—Rudder head block, bored out and new brass liner cast and fitted into same. Liner bored out, faced and oil-grooved to suit conditions, steel riding collar supplied and all fitted as directed with drift keys and suitable oiling device. Rollers for chain leads from quadrant raised to proper height.

54—Key-way in new hub trued up, to allow proper fitting of same.

55—Gudgeons on rudder post bored out, new brass bushings cast, fitted to gudgeons and bored out to suit pintles. New steel pintles with suitable brass liners made and fitted. New steel locking pintle and nut and new steel button supplied and all satisfactorily fitted. (Delay on dock, due to this work, about 60 hours.)

56—Steel plate wrench for propeller blade, nuts supplied.

57—Drawings and sketches of various parts of engines, supplied.

58—New 1" asbestos tape used under all cylinder heads and L. P. valve chest cover, (about 100 ft. of tape used).

59—Removed patch between H. P. and I. P. cylinders, chipped and faced joints, renewed patch and replaced lagging.

sheaves

60—L. P. eccentric ~~shoes~~ turned up and two new bolts supplied and fitted.

61—6 holes drilled and tapped in cross head binders for handling same.

62—New eccentric strap and sheave supplied and fitted for turning engine. Renewing all bolts, nuts and washers in connection with the same.

63—6 new dowels and set screws supplied for main journal and crank pin locking collars.

64—Beam center and short drag-link pins filed up and oil-stoned. [44]

CARL E. KLITGAARD,

Chief Engr.

65—Revolution counter overhauled and all rods and levers connected with same reconstructed.

66—Blind flange inserted in main steam line for testing boilers.

67—One new clip for L. P. beam supplied and fitted for taking indicator cards.

68—All old striking points on main engine corroborated. [45]

CARL E. KLITGAARD,

Chief Engr.

SHIP AND PIPE FITTING.

- 1—#4 tank tops on port side, entirely renewed, additional fore and aft and 'thwart ship angle iron supports being secured under same.
- 2—One—4" hole and 2—1" holes cut in bottom of ship, while on dock, to facilitate the cleaning of #4 tank. The 1" holes were tapped out and screwed plugs inserted, these being riveted over on both sides. The 4" hole was plugged with a properly secured (riveted) flush patch. All labor for cleaning tank and removing dirt, supplied by works.
- 3—2-21½" sounding pipes 30" long, flanged and capped, supplied; holes cut in #3 and #4 tank tops as directed (in shaft alley) and sounding pipes fitted.
- 4—8 new angle iron bearer bars, supplied and secured in shaft alley as directed, for new flooring support.
- 5—4 new sheet iron guards for shaft alley couplings, supplied and bolted in place. Additional 5/8" dia. rods fitted, as hangers for same.
- 6—Hand rails around L. P. valve motion. I. P. and H. P. engines reconstructed.
- 7—Floor plates and supports at back of engine reconstructed and renewed.
- 8—Floor plates over shaft raised and new angle bar supports fitted.

- 9—Sheet iron cover for turning engine supplied and fitted.
- 10—New galvanized iron casing for turning gear supplied and fitted.
- 11—New galvanized iron slush pan for L. P. eccentrics supplied and fitted. [46]
- CARL E. KLITGAARD,
Chief Engr.
- drain
- 12—H. P. eccentric slush pan, re-flanged and ~~draw~~ hole cut, flanged and plug fitted.
- 13—2—sheet iron guards for H. P. and L. P. crank pits supplied and fitted.
- 14—Bulkhead on port side of L. P. valve motion, straightened and patched—Division plate in filter tank straightened and patched.
- 15—Lagging cut away, between boilers (in engine-room) to secure easy access to new position of engine room tanks, “manifold” and admit of additional passage way to fire-room.
- 16—Brackets for oil container made and fitted to bulkhead as directed. Container and tray fitted with lugs and properly secured to brackets.
- 17—1 brass strainer for main injection cast and fitted, new bolts being used throughout. 3—w. i. plate strainers for auxiliary suction made and fitted as directed.
- 18— $\frac{3}{8}$ ” sheet iron plates supplied and properly secured, around ^{stern} ~~stem~~ frame, 2 zinc plates being ^{stern} supplied and fitted around ~~stem~~ tube boss.

- 19—New brass water service to guides, with galvanized iron drains supplied, fitted and secured as directed. All water service lines throughout engine room and shaft alley, reconnected.
- 20—All sea, suction valves, drilled and tapped (under valve) 2" hydraulic nipples and Lunkenheim globe valves securely inserted and connected with most available steam line.
- 21—Union, short nipple and sleeve on whistle line above umbrella, renewed.
- 22—Piping to engine room, tanks, manifold altered and renewed lowering manifold to within about 8" of tank tops. Strap support for manifold [47] supplied and fitted.

CARL E. KLITGAARD,

Chief Eng.

- 23—New 4" vapor line (about 14 ft.) with 1 set of flanges (from evaporator to main condenser) supplied and fitted in place, with new hangers attached, as directed.
- 24—1-21½" galvanized iron suction line (about 20 ft.) from bottom blow line to fire pump ~~pan~~ fan as directed, necessitating cutting of holes in one one ~~our~~ frame and ~~our~~ floor plate. In connection with this work one C. I. cross and one 21½" flanged extra heavy brass Lunkenheimer valve was supplied and fitted.
- 25—Increased size of hole in lagging around the H. P. relief valve on steam chest.
- 26—Altered and repaired lagging on L. P. receiver.
- 27—Reconstructed water service for thrust.

- 28—Chipped one inch off the end of each propeller blade, filing and trimming blades, as directed.
- 29—All copper pipes connected, including exhaust from steering engine, circulating line from boilers and main steam line, using new joints, bolts, nuts and washers, throughout. [48]

CARL E. KLITGAARD,

Chief Eng.

BOILERS.

- 1—Combustion chambers, sides and backs and tube-sheets, thoroughly sealed and cleaned, with air tool.
- 2—2-3/4" low water cocks, supplied and inserted in shell of boilers, as directed by U. S. inspectors.
- 3—1—new main stop valve stem and 2-19" w. i. handles supplied and fitted.
- 4—2 donkey and 2 main check valve discs and 1 seat, supplied. 2-3 1/2" valve discs, 1 seat, 1 yoke, stem and nut (all for aux. steam line over boilers, supplied and fitted).
- 5—Lagging on and around main boilers repaired and about 120 sq. ft. of new lagging fitted.
- 6—2-3/4" gas holes drilled and tapped in donkey boiler shell, as directed by U. S. inspectors (for low water cocks).
- 7—1-8" Channel iron stanchion supplied and fitted under lower course flange, after end of stack, as directed, (for extra support).
- 8—2 letters (M) of 3/16" galv. iron—4ft. 6"x4 ft. 0", supplied and properly secured to stack, with 5/8" bolts, nuts, washers and thimbles 3" long.

- 9—W. I. strap hangers, supplied and fitted, on feed and bottom blow lines as directed.
- 10—Damper in main stack, overhauled and re-installed, new handle supplied and fitted. [49]

CARL E. KLITGAARD,

Chief Eng.

DECK.

Hatch

- 1—10 collar eye-bolts forged and fitted in ~~Nabell~~ combings, as directed.
- 10 hook bolts, nuts and washers for same, supplied.
- 6 fork bolts, nuts and washers for eye-bolts already in combings—supplied.
- (4 eye-bolts in each hatch.)
- 16—5½" square plates, supplied.
- 2—1 Clamp for broken stanchion on rail of forward port gangway, forged and fitted.
- 3—1—12" channel iron ladder, (main to 'tween deck #1 hold) supplied and riveted to place.
- 4—1—31½" round iron ladder ('tween deck to lower hold #2) supplied and fitted.
- 5—3 stanchions riveted up and 7 stanchions bolted as directed. 1 stanchion removed and new foot welded and stanchion re-riveted to beam and deck, as directed.
- 1 broken beam patched and stanchion for same made and riveted to place (all in forward 'tween decks).
- 6—Smoke stack guys, shackles, turn-buckles, pins, blocks and nuts, overhauled and repaired.
- 7—Steering engine rods overhauled, all keys and

couplings examined. Gears refitted with taper pins and all fitted up in place, with suitable oiling device attached. 4 new brass oil cups supplied for same.

8—Old propeller removed and placed as directed.

9—3 sky-lights glasses supplied. [50]

CARL E. KLITGAARD,

Chief Eng.

MAIN CONTRACT.

1—This work was completed, as called for in specifications, corrugated copper gaskets being used for jointing. The studs on condenser joint were not enlarged, but additional studs were fitted.

2—This work was found unnecessary, but in recompense a 12" balance cylinder complete with piston, bull ring, rings etc. was fitted over L. P. valve. Valve was chipped and faced on top, a square washer of adequate thickness and a locking nut fitted on valve stem to suit and valve stem lengthened and properly finished in lathe. The whole being fitted up in place and balance cylinder connected to condenser with $\frac{3}{4}$ " piping, as directed.

3—This work was done, as specified, with the exception that instead of reconstructing H. P. and I. P. shoes, new ones were cast and filled with #1 Challenge metal, (metal only to be paid for—92 lbs. in ea.) Guides were not restayed, but new and heavier plates were fitted.

4—The H. P. eccentric straps were not remetalled. The L. P. straps were bored out, brass liners

cast and fitted; these were bored out to suit sheaves and top halves pocketed and babbited. The completed straps were properly fitted to sheaves in shop and refitted on board vessel. Bronze in liners for this work 150# each. Challenge metal 36# each. As recompense for not remetalling H. P. straps the L. P. sheaves were turned up in lathe and 2 new bolts and nuts fitted in same.

5—Work completed as specified.

6—Instead of the column support called for, a manganese bronze patch of average 1" section was carefully fitted to #1 housing and thoroughly secured with machined bolts 1 $\frac{1}{4}$ " dia. to where this [51] was not practicable 1" tap bolts were used. (Weight of bronze 897#).

CARL E. KLITGAARD,

Chief Eng.

7—Work completed as called for.

8—The crank-shaft, (calling for removal) was not taken to shop; a cast iron cylinder was made and bored out to size of shaft bearings. With the aid of this all the bearings—4 in number—were filed up and oil-stoned.

9—Work performed as called for.

10—Work performed as called for.

11—Work performed as called for (cemented under boilers only).

12—Work performed as called for.

13—The windlass repairs called for, were not done, but in recompense 2 channel iron supports

were supplied and fitted under break of foe'sle head. [52]

CARL E. KLITGAARD,

Chief Engr.

MINOR CONTRACTS.

- 1—All spring bearings re-metalled with #1 "Challenge" metal, bored out to size of shaft bearings and suitable oil grooves cut. (5 off @ \$66.00 each=\$330.00).
- 2—Horse shoes in thrust re-metalled with #1 "Challenge" metal on one side only—planed to size, properly oil-grooved and satisfactorily fitted to collars. (6 off @ \$24.48 ea—\$146.88 charges for metal only—51# in ea.)
- 3—I. P. piston rod ground off=\$50.00.
- 4—Locking clutch on rocker arm, complete with all necessary rods, brackets and wheel, supplied and satisfactorily fitted (\$140.00).
- 5—Engine room upper and middle platforms and hand rails reconstructed—\$190.00.
- 6—5 new $\frac{3}{8}$ " checkered floor-plates supplied and fitted in place \$10.00 ea=\$50.00.
- 7—Bottom heads, backs and baffle plates in Howden air ducts renewed. Heads to be $\frac{5}{16}$ ", backs $\frac{1}{4}$ " and baffle plates #10 iron \$725.
- 8—Stack renewed. \$900.00. Lower casing omitted.
- 9—Air casing around stack, below umbrella enlarged and renewed—\$60.00.
- 10—New angle bars and supports at base of stack, including turn-buckle strengtheners and hangers—\$186.00.

11—New elbow in donkey boiler stack— $\frac{1}{4}$ " iron plates—\$40.00.

12—Caulking and renewing rivets etc. etc. in main boilers—\$140.00.

Total—\$2957.88.

Credit—3166# Scrap brass @ 9¢ a lb.—\$284.94.

[53]

CARL E. KLITGAARD,
Chief Eng.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Libelant's Exhibit Klitgaard 2. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[Libelant's Exhibit Klitgaard No. 1.]

Edmund B. McClanahan S. Hasket Derby

McCLANAHAN & DERBY,

Attorneys at Law,

Merchants Exchange Building.

Telephone Kearny 3182 Cable Address "Derby"

Leiber's Code.

San Francisco, Cal., June 23, 1910.

Mr. Carl T. Klitgaard,

c/o Pacific Guano & Fertilizer Co.,

268 Market St.,

San Francisco.

Dear Sir:—

We should be pleased to have you give us an estimate of the value of certain repair and alteration work said to have been done to the S. S. "Hilonian" between July and December, 1909. If you will give

this your careful consideration and render your report, together with your bill for your services, to this office we shall appreciate the same.

We enclose what is said to be the specifications of the work.

Respectfully yours,

McCLANAHAN & DERBY,

enc. Attorneys for Matson Navigation Co.

EBM. [54]

SPECIFICATION OF WORK SAID TO HAVE
BEEN DONE AT SAN FRANCISCO ON
THE S. S. "HILONIAN" BETWEEN THE
MONTHS OF JULY AND DECEMBER, 1909.

Renewed #4 tank tops on port side and secured fore and aft and thwart ship angle irons under same. Cut 3 holes in bottom of ship to facilitate the cleaning of #4 tank. Patches riveted over holes. 2-21½" sounding pipes supplied and fitted in #3 and #4 tanks. Secured angle iron bars in shaft alley for new flooring support. Supplied and fitted 4 new sheet iron guards for shaft alley couplings. Renewed and reconstructed floor plates and supports at back of engine. Raised floor plates over shaft and new angle bars supports fitted. Reconstructed hand-rails around L. P. valve motion and I. P. and H. P. engines. Made and fitted 2 sets iron guards for H. P. and L. P. crank pits. Straightened and patched bulkhead on port side of L. P. valve motion and division plate in filter tank. Re-flanged H. P. Ecc. slush pan drain holes cut in same and plug fitted. Supplied and fitted sheet iron cover for turning engine. Supplied and fitted new galv. iron casting for turning

gear. Supplied and fitted new galv. iron slush pan for L. P. Ecc. Brackets for oil container made and fitted to bulkhead. Container and tray fitted with lugs and secured to brackets. Lagging cut away between boilers in engine-room. Scaled and cleaned combustion chambers sides and backs and tube sheets of boilers. Supplied and fitted 2- $\frac{3}{4}$ " new style try cocks. Lagging on main boilers repaired and renewed. Made and fitted one main stop valve stem and 2 W. Iron handles. Made 2 main and 2 donkey check valve discs. and one seat. Made and fitted 2 valve discs, seat, yoke, stem and nut for aux. stem line over boilers. Supplied and fitted strap hangers on feed and bottom blow lines. Drilled and tapped 2 holes in donkey boiler shell for low water cocks. Overhauled and re-installed damper in mainstack and new handle fitted to same. Supplied and fitted one extra stanchion support under lower flange on after end of stack. Made 2 letters M, of Gal., iron and secured same to main stack. Smokestack guys, shackles, etc., overhauled and repaired. Made and fitted one ladder from main to 'tween deck. Made and fitted one ladder from 'tween deck to lower hold. Forged one clamp for broken stanchion on rail and fitted same. Patched broken beam in 'tween decks and stanchion made and fitted to same. Riveted and bolted stanchions as directed. Removed one stanchion, new foot welded to same and re-riveted. Forged and fitted 10 eye bolts, in hatch combings. Supplied bolts, nuts, washers and plates for hatch combings. Supplied and secured plates around stern frame, and line plates around stern tube boss. Bored

out rudder head block. Made and fitted new brass liner for same. Made and fitted steel collar for same. Rollers for chain leads from quadraunt raised. Bored out gudgeons on rudder post and made and fitted new brass bushing to gudgeons and bushing bored to fit pintles. New pintles with brass liners made and fitted. Made and fitted new locking pintle with nut and button. Trued up key way in new propeller hub. Made one propeller blade wrench. Overhauled steering gear eng. rods and couplings. Gears refitted with taper pins and oiling devices attached. Made and fitted one brass strainer for main injection with new bolts. Made and fitted 3 W. iron plate strainers for aux. suction. All sea suction valves drilled and tapped. Nipples and valves inserted and connected to stm. line. Chipped one inch off [55] each propeller blade and trimmed same up. Altered and renewed pipes to engine room tank manifolds, made and fitted strap supports for same. Made and fitted new 4" vapor line with flanges from evaporator to main condenser, new hangers fitted. Run 2½" gal. suction line from bottom blow to fire pump. Holes cut in one frame and floor plate run this line. All copper pipes connected using new joints, bolts, etc., throughout. Renewed fittings on whistle line above umbrella. Size of hole in lagging around H. P. relief valve increased. Altered and repaired lagging on L. P. receiver. Removed forward bilge pump body to braze copper pipe, studs renewed and studs replaced. Made and fitted one C. iron bonnet for forward line pump. Bored out air pump links made and fitted new parting pieces planed off brasses,

made new locking collars, shortened binder bolts, trued up pins and refitted. Face off flanged of air pump floating top, made and fitted holding lugs for pump barrel, made and fitted new bronze tap bolts for same. Made and fitted brass bushing for pump cover. Removed circ. pump barrel to shop and faced off. Made and fitted new cast iron gland for old circ. pump plunger. Made 2 brass links and one cross-head for sanitary pump. Turned down thrust shaft couplings and faced off. Bearing trued up and shaft turned down at each end of thrust collars. Chipped and filed ribs at each end of thrust box, drilled holes in same and studs fitted. Made and fitted two brass stuffing boxes completed to thrust box. Portion of shaft alley bulkhead cut out, removed one length on intermediate shaft to shop, forward coupling faced and turned down and bearing trued up. All other int. shaft bearings trued up in place. Couplings bolt holes in int. shafting reamed out. 9 bolts renewed and fitted. Water service for thrust reconstructed. Trued up I. W. P. crankshaft by hand. I. P. crpin brasses re-metaled, bore out and re-bedded. Horse-shoes planed off on sides. Planed off main journal binders on sides and bottom, hand holes enlarged and holes plugged. Made and fitted 12 norw. iron holding down bolts for spg. bearing and thrust box. H. P. and I. P. valves removed for examination, cleaned, oiled and replaced. Crosshead yokes of H. P. and L. P. valves removed to shop. Brasses bored and planed and yokes filed off. New gibes made and fitted to brasses, all parts refitted and valves reset. L. P. piston and follower faced off on ring pckg. bear-

ing faces. Lug thrust spare L. P. valve stem. Made new nut for valve. Made and fitted new binder bolts and nuts to foot of valve stem. Removed lower head off I. P. valve chest to shop and drilled same for 1½ drain plug; holes drilled in ribs of cover. Made and fitted 1½ brs. drain plug to I. P. valve chest cover. Made and fitted 4 brass parting pieces for L. P. Ecc. straps. Made and fitted iron distance pieces for H. P. Ecc. rods. Made and fitted brs. neck bushing in L. P. valve chest. Guide brasses of L. P. valve stem bored out and refitted. Renewed and fitted L. P. cut off screw to block, block reconstructed and supplied with locking nut and washer. Made wrench for locking nut of same. Planed off parting pieces of I. P. crosshead and made new shims for same. Repaired and refitted crosshead oil cups. 6 holes drilled in crosshead binders. Made and fitted Ecc. strap and sheave for turning engine and renewed all bolts, nuts and washers for same. Supplied new dowels and set screws for main journal and crpin locking collars. Overhauled all throttle, reversing, passover and drain rods, supplied new pins and refitted same. Connected up all coffer drains using new jointings, bolts, nuts and washers. Supplied and fitted 1½ brs. nipple and lunk. Globe valve to drain on main stm. Line made and fitted new brass water service to guides with galv. drains and reconnected all water service lines in engine room and shaft alley. Made one new crankpin wrench. Repaired old crosshead wrench as directed. Renewed aft beam center housing and refitted brasses in both housings. Chipped forward patch on #3 housing. Tested all bolts and rivets in patches on No. 3

housing, made and fitted 2 new bolts and nuts in same. Made and fitted stm. gauge boards in engine and fire rooms, connected up gauges, tested 3 stm. gauges, supplied [56] 2 stm. and 2 Ammonia gauges. Made and fitted new bonnet compl. for main injection valve. Engine room tank main folds removed to shop and bored out. Made and fitted new brs. valve seats and discs for same. Supplied one oil cup for Howden draft pan engine. Supplied one Challenge metal ring casting. Made and fitted straps for hanging spare horse-shoe and 2 adjusting nut wrenches. Made 4-11¼ bolts, nuts and washers for holding down brasses in place. Made 2 swivel eye bolt strove backs for handling main bearing crown brasses. Drilled holes and made eye bolts and fitted under cylinder for handling. Removed patch between cylinders, chipped and faced joints, renewed patch and replaced lagging. Filed up beam centers and drag link pins. Put new asbestos tape under all cyl. heads and L. P. valve chest cover. Overhauled revolution counter and reconstructed all rods and levers of same. Made drawings and sketches. Joints between air pump body and condenser, air pump body and valve chest were remade, the pump was removed and joint faces were tested and all filed to a true surface before rejoining all, bolts and washers of these joints were renewed, enlarged studs on air pump, corrugated gasket placed in joints. Made a 12" balance cylinder completed with piston bull ring, rings, etc., and fitted over L. P. valve. Chipped and faced same on top, made and fitted a square washer and locking nut on the valve. Lengthened the valve and finished in lathe, installed

the above complete in vessel, with the necessary pipe connections, etc. Removed the high pressure and low pressure shoes, cast and finished new ones which were lined with challenge metal, made and fitted new plates to guides.

Removed the L. P. straps and bored same out to suit eccentric sheaves, the top halves were pocketed and babbitted and refitted same aboard ship. Turned up sheaves were turned up and 2 new bolts and nuts were made and fitted. Bored out the high pressure cylinder and counterboard cast, finished and fitted new bull rings. Cast, finished and fitted a manganese bronze patch of average 1" section to #1 housing. Bolt holes in #2 coupling were reamed out and new bolts fitted of Norway iron. Bearings of the crankshaft were filed up and oiled stoned by hand.

Removed the blow off cocks on shin of ship, and supplied new cocks and installed same. All sea valves re-ground and all strainers were removed and cleaned while in dock. Made new valve stem and nut and fitted same to main injection valve. Removed valve chamber of circulating pump and fitted plate under same to take old studs fitted.

Made 12 stakes. Wedges. Made 6 scaling bars. Made 2 brine cocks as per sketch. Supplied 3 compr. grease cups and 2 bushs. Forged and finished one key. Forged one bracket and drilled holes in same. Threads trued up on 8 coupling bolts. Retempered 4 safety valve springs. Faced 2 bronze bands. One bronze valve stem turned up. Made one steel forging for valve bonnet and fitted the same to bonnet. Bonnet shaped to suit forging. Fitted 2 coupling

bolts and chased threads in nuts for same. Made 2 wrought iron wrenches. Made one low pressure follower and made one spare set of high pressure piston rings.

Made one L. P. piston follower. Made one spare set H. P. piston rings.

Bored out and re-metaled 5 spring bearings. Re-metaled horseshoes in thrust on one side only, plane to size, groove for oil and fit to collars. Grind of I. P. piston rod. Supplied and fitted in place 5-3/8" check floor plates. New elbow in donkey boiler stack. [57]

Repairs to ladders, floor plates and gratings in engine room.

Renewed 35 rivets in connection. Caulk 70' of seam. Renewed one tube in main boiler.

Made and installed one brake rig on reversing shaft.

Cast and finished 4 new bearing boxes for main journals.

Made new smoke stack 8'x46'. Removed old stack and installed new one. Enlarged casing below umbrella. Made new tops for breeching and 2 turn-buckle hangers.

Renewed 2 bottom tube sheets in forced draughts. Renewed 2 back heads, 2 division heads and 4 tubes in smoke box. [58]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Libelant's Exhibit Klitgaard No. 1. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[Curtis' Exhibit No. 1.]

All Agreed Prices—Net Cash.

[In pencil:] (Proof 1)

UNITED ENGINEERING WORKS.

Marine and Stationary Machinery of All Kinds.

Office and Works:
252-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 7364.

San Francisco, Cal., September 27, 1909.

Sold to Str. "Hilonian" & Owners. Terms ———

Bored out and remetal 5 spring-bearings as agreed	\$330.00
Remetal horse shoes in thrust on one side only —plane to size—groove for oil and fit to collars—as agreed	146.88
Grind off I. P. piston rod—as agreed.....	50.00
Supply and fit in place 5¾" check floor plates as agreed.....	50.00
New elbow in Donkey boiler stack—as agreed	40.00
	<hr/>
	\$616.88

Paid Nov. 24/09.

UNITED ENG. WORKS,
CURTIS.

31786—5295.
C.W.S.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Curtis' Exhibit 1. Received Feb. 24, 1913. F. D. Monckton, Clerk. [59]

[Curtis' Exhibit No. 2.]

All Agreed Prices—Net Cash.

[In pencil:] (Proof 2)

UNITED ENGINEERING WORKS.

Marine and Stationary Machinery of All Kinds.

Office and Works:
252-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 7364.

San Francisco, Cal., September 24, 1909.

Sold to Str. "Hilonian" & Owners. Terms ———

Make new smokestack 8'x46'. Remove old stack
and install new one. Enlarge casing below umbrella.
Make new top for breeching, and 2 turnbuckle hang-
ers.

To construction of new smoke stack remov-

ing old and installing new.....\$ 900.00

Enlarged casing as agreed..... 60.00

Made new top for breeching and made 2
new turnbuckle hangers—as agreed.. 180.00

\$1140.00

~~Paid Nov. 24/09.~~

UNITED ENG. WORKS,
CURTIS.

31790—5389.

CWS.

[Endorsed]: No. 2251. U. S. Circuit Court of
Appeals for the Ninth Circuit. Curtis' Exhibit 2.
Received Feb. 24, 1913. F. D. Monckton, Clerk.

[60]

[Respondent's Exhibit Saunders No. 2.]

San Francisco Office: Shipyard, Oakland:
 Phone, Kearny 5140 Phone, Oakland 6502.

CREDIT MEMORANDUM

From

UNITED ENGINEERING WORKS,
 Builders of Marine and Stationary Machinery,
 224-232 Spear Street.

Applies on Invoice, September 27, 1909.

To Matson Navigation Co.

Str. "Hilonian."

San Francisco, Cal., November 1, 1909.

Your Account is CREDIT as follows:

To 3166# Scrap Brass.....@.09 \$284.94
 [61]

San Francisco Office: Shipyard, Oakland:
 Phone, Kearny 5140. Phone, Oakland, 6502.

CREDIT MEMORANDUM

From

UNITED ENGINEERING WORKS,
 Builders of Marine and Stationary Machinery,
 224-232 Spear Street.

Applies on Invoice——

To Matson Navigation Co.

San Francisco, Cal., November 20, 1909.

Your Account is CREDIT as follows:

1 propeller wheel Str. "Hilonian". \$50.00
 1 tail shaft Str. "Hilonian" 14134#
@ .01½ 76.67

1 propeller wheel Str. "Enterprise"	50.00	
1 tailshaft Str. "Enterprise"		
11692#	@ .01½	58.40
CWS.		\$235.07

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Saunders No. 2. Received Feb. 24, 1913. F. D. Monckton, Clerk. [62]

[Respondent's Exhibit Saunders No. 3.]

COPY.

San Francisco, Cal., Jan. 18-1909

S. S. "HILONIAN."

Matson Navigation Co.,
268 Market St., City.

Gentlemen:—

We propose to supply and install complete and in running order one circulator having a 30" composition runner and 8"x6" single piston valve engine. All to be complete coupled up with all pipe connections, valves, etc., for the Sum of Thirteen Hundred Fifty (\$1350.00) Dollars.

Regarding the air-pump we can supply and install one Dow Twin beam standard type air-pump for the Sum of Thirty-two Hundred (\$3200.00) Dollars, or one Dow simplex air-pump for the Sum of Twenty-eight Hundred (\$2800.00) Dollars.

Either of these pumps we will guarantee to perform the work in a satisfactory and efficient manner. It is understood that these alterations will not delay the ship and are to be done between trips.

Either type of air-pump is capable of handling 2600 HP.

Respectfully submitted,
UNITED ENGINEERING WORKS.

Per H. P. GRAY, Sect'y.

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent Exhibit Saunders 3. Received Feb. 24, 1913. F. D. Monckton, Clerk. [63]

[Curtis' Exhibit No. 5.]

H. P. Gray, Secretary S. J. Eva, President J. R. Christy, Manager

UNITED ENGINEERING WORKS,

Marine and Stationary Machinery of All Kinds.

Office and Works:
252-256 Spear Street.
San Francisco, Cal.
Telephone Kearny 120.

Marine Railway 4000 Tons.
Shipyard:
Oakland Harbor.
Telephone Oakland 6502.

All Agreements are Contingent upon
Strikes and Other Delays Unavoid-
able or Beyond Our Control.

San Francisco, Cal., August 26, 1909.

Attention of Capt. Sanders.

Matson Navigation Co.

Gentlemen:

We propose to remove the after side of both up-takes where wasted and put in entirely new plates of #8 steel. Remove present lower tube sheets in Howden force draught system and replace with new. Remove air baffles in hot air space and replace with new and put everything back in place to satisfaction of owners representative, all for the sum of Seven Hundred Twenty Five (\$725.00) Dollars.

Respectfully Submitted,

UNITED ENGINEERING WORKS,

per H. P. GRAY. [64]

Aug. 28-1909.

United Engineering Works,
City.

Gentlemen:—

Your letter of August 26th offering to make certain repairs to the Hilonian for the sum of \$725, is hereby accepted.

Yours truly, [65]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Curtis Exhibit 5. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[Curtis' Exhibit No. 6.]

Nov. 14-1908.

Matson Navigation Co.,
268 Market St., City.

Gentlemen:—

We propose to renew tubes in the Donkey Boiler on the SS. "Hilonian" as per specifications submitted for the Sum of Two hundred and fifty-nine Dollars (\$259.00).

Respectfully submitted,

UNITED ENGINEERING WORKS,

by , Sect'y. [66]

. SPECIFICATIONS

FOR

Renewal of Tubes in Donkey Boiler of the
S/S "HILONIAN."

64 plain tubes 3-1/4" dia. #10 gauge

20 stay tubes 3-1/2" " # 6 "

Tube sheets and connections to be thoroughly scaled and coated with white zinc and coal oil before the new tubes are put in. All material and work to comply with the requirements of the U. S. Inspec-

tors and to be satisfactory to the owners or their representative. [67]

MATSON NAVIGATION COMPANY,

268 Market Street
San Francisco, Cal.

Codes
A. B. C. Edition
Western Union

November 14, 1908.

United Eng. Wks.,
254-256 Spear St.,
City.

Dear Sirs:—

We hereby award you the contract for the renewing of the tubes in the donkey boilers on the S. S. "Hilonian," as per your bid for \$259, submitted November 14th.

Yours very truly,

MATSON NAVIGATION COMPANY,

W. H. SELLANDER. [68]

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Curtis Exhibit No. 6. Received Feb. 24, 1913. F. D. Monckton, Clerk.

[**Libelant's Exhibit Heynemann No. 3.**]

[Original Libelant's Exhibit Heynemann No. 3, omitted pursuant to Stipulation Under Rule 23.]

[69]

Sept. 4th.
100 added.

Date.	Machinist.	Machinist. Helpers.	Iron- worker.	Steam and Pipe Fitters.	S. and P. Fitters. Helpers.	Air Tool Operators.	Air Tool Machinist.	Riggers.	Electrician	Shipwright.	Laborers.	Foremen.	Totals.
1909.	No.												
Aug. 23	8	47	5	39	40								
24	17	197	12	144	4	40						1	4
25	17	202	16	190	4	40						1	19
26	18	225	16	194	3	15						2	48
27	17	238	16	228	5	41	3	15				2	45
28	21	299	17	232	6	44	2	10	1	15	5	16	66
29	19	408	12	260	4	24	1	6	52	1 Day.	19	54	702
30	16	234	16	232	4	24	1	6	78	1 Day.	18	28	912
31	16	219	17	238	17	100	2	8	20	1	15	20	82
Sept. 1	14	214	16	236	13	102	1	16	7	126	2	41	932
2	15	212	16	232	12	12			8	80	1	20	854
3	14	214	16	232	16	148			7	56	2	35	88
4	14	203	17	246	13	100			9	113	2	42	906
5	16	338	14	316	8	80			8	90	2	38	1002
6	16	396	13	306					13	180	2	36	985
7	19	269	18	256	30	254			8	128	2	37	1123
8	21	320	15	220	53	366			7	140	1	2	1025
9	17	392	11	248					11	142	1	2	932
10	24	357	18	254	21	167			10	56	2	41	908
11	23	351	19	296	24	214			9	104	2	4	109
12	24	654	20	416	15	196			1	16	1	47	1147
13	27	423	18	286	31	334			1	1 Day.	20	5	130
14	22	304	17	210	30	253			7	166	2	37	1305
15	28	430	15	246	21	188			12	249	2	50	838
16	33	366	14	194	14	126			11	190	1	48	1396
17	35	480	23	338	27	205			10	284	1	57	1723
18	27	387	12	171	29	233			9	224	1	63	1794
19	14	238	5	84	2	40			2	1 Day.	34	52	1566
20	33	567	9	134	23	173			7	133	2	30	127
21	25	318	7	94	39	516			12	78	3	27	1512
22	13	204	5	74	4	40			16	172	2	4	1131
23	4	155	8	76	8	76			6	18	2	9	1343
24			8	40	8	40			6	37	3	10	88
									4	64	2	18	911
									5	15	1	3	362
												61	1051
												89	1243
												31	381
												10	241
												8	40
												95	2532
												1031	31654

—86 Sept. 17.

—12 Sept. 17.—

—130 Sept. 17.
+ 10

[Endorsed]: No. 2251. U. S. Circuit Court of Appeals for the Ninth Circuit. Respondent's Exhibit Kinsman's No. 4. Received Feb. 24, 1913. F. D. Monekton, Clerk. [70]

